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ABSTRACT

A study explored the agreement in occupational fields between adolescents' career aspirations and career expectations and the influence of gender, grade, and locus of control on this agreement. The reasons for occupational choice were also examined. Subjects were 500 randomly selected 8th through 12th grade students attending a secondary school in the lower mainland of British Columbia, Canada. Instruments were an open-ended questionnaire regarding career aspirations and expectations, a scale to estimate probability of obtaining ideal and real occupational choices, and measures of reasons for career choices and locus of control. Results supported the research hypotheses and indicated that little agreement in occupational fields existed between career aspiration and expectation and that there was no grade, gender, or locus of control influence. Similarly, no differences between the reasons for ideal and real occupational choices existed. It was found that reasons for occupational choices varied across grades. (Appendixes provide the instruments and tables of summaries of reasons given by students for ideal and real occupational choices.) (YLB)

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ADOLESCENTS' CAREER ASPIRATIONS AND EXPECTATIONS: THE INFLUENCE OF GENDER, GRADE, AND LOCUS OF CONTROL

by

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B.P.E., University of British Columbia, 1968

M.P.E., University of British Columbia, 1970

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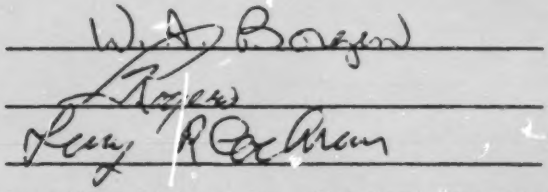

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Abstract

This study explored the agreement in occupational field between adolescents' career aspirations and career expectations and the influence of gender, grade, and locus of control on this agreement. In addition, the reasons for occupational choice with regard to career aspiration and career expectation were examined. An examination of the literature revealed little current research on the relationship between career aspirations and expectations when examined together or on the various factors which influence adolescent career choice. The literature does indicate that, when considering specific factors, career choice was positively related to grade and gender. However, despite the importance of psychological constructs in career choice, relatively little research on the relationship between locus of control and career choice has been published to date. In this study, it was hypothesized that there would be a difference between the field of subjects' ideal occupational choices and real occupational choices regardless of gender, grade, or locus of control, and that there would be a difference in the subjects' reasons for ideal occupational choices and real occupational choices regardless of gender, grade, or locus of control. The study was conducted with 500 randomly selected grade eight to twelve students

attending a secondary school chosen by the Superintendent of the cooperating school district in the Lower Mainland of British Columbia. All the subjects, except those in grade nine, were taking some form of a career education program. The results of the study supported the research hypotheses and indicated that there was little agreement in occupational field between career aspiration and expectation, and that there was no grade, gender, or locus of control influence. Similarly, there was no differences between the reasons for ideal and real occupational choices. It was found, however, that reasons for occupational choice varied across grades. The results of the study have implications for both counsellors and career guidance programs at the secondary school level.

W.A. Boyd

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Chapter I

Introduction

Development and Theoretical Basis of the Problem

Explanatory models of occupational choice have generally analyzed the occupational decision-making process in terms of multiple influences emanating from sociocultural and social psychological sources and from the situational or environmental context (Ginzberg, Ginzberg, Axelrad, and Herma, 1951; Sewell and Armer, 1966; Slocum, 1956). Furthermore, this decision-making process has frequently been considered in terms of stages of development or as a developmental sequence in which the crystallization of occupational choice represents a series of decisions made over a period of years, rather than an accidental decision stemming from a single episode (Blau, Jessor, Parnes, and Wilcock, 1956; Ginzberg et al., 1951; Musgrave, 1967). According to this conception, occupational status orientation becomes increasingly realistic as the adolescent progresses through various stages of occupational selection. Ginzberg, Ginzburg, Axelrad, and Herma (1951) referred to this "realistic stage of development" as one of compromise in which interests, capacities, values, and opportunities are taken into consideration. Blau et al., (1956) suggested that realistic alternatives emerge as individuals compromise their ideal

preference with actual expectations. As adolescents advance through the various stages of occupational choice, many will become increasingly cognizant of various barriers to their occupational aspirations and will begin to adjust those aspirations accordingly. Brinkerhoff and Kunz (1972) for example, described perceived barriers to occupational aspirations in terms of age, sex, grade, race, ability, number of positions available, social class and social influence. Kuvlesky and Ohlendorf (1968) suggested perception of educational opportunities, level of occupational knowledge, self-image, parental encouragement, and peer support as critical considerations in the compromise process when deflecting from idealistic choices. Although there is relatively little empirical evidence, research indicates that anticipated deflection from idealistic choices is associated with the social class origin of the youngster (Caro and Pihlbald, 1964; Cosby and Picou, 1971; Speery and Kivett, 1964; Stephenson, 1957).

The meaning of this compromise of an ideal for a more realistic occupation has become increasingly important for the understanding occupational choice. Early studies by Blau et al., (1956), Glick (1964), and Stephenson (1957) verify the fact that adolescents often distinguish between occupations they desire to have and occupations they expect to enter.

Kuvlesky and Bealer (1966) have noted that researchers in the area of occupational choice should recognize the fact that adolescents distinguish between occupational aspirations (desired occupations) and occupational expectations (anticipated occupations).

Investigators have increasingly taken note of the incongruities between the kinds of careers students would like to achieve and the ones they actually expect to enter (Crites, 1969). Discrepancies in level or field of occupational choice, or anticipated career goal deflections, have been noted in the earlier stages of career planning. Cosby and Picou (1971) in examining level of occupational choice reported that from thirty to fifty percent of the students in various study groups they reviewed anticipated deflection from idealistic career choices. Breton (1972) found that thirty four percent of secondary school students in Canada were without a career choice. Similar results are reported by Anisef (1975) and Russell and Warrach (1976).

Since the turn of the century the concept of vocational or career development has undergone a great deal of change. The theories of individual developmental psychology presented by such theorists as Ginzberg (1951) and Super (1953) have contributed greatly to our understanding of career development, particularly in the area of career choice. Former simplistic

views of career choice, although perhaps adequate in the past, are no longer acceptable in our highly complex, mobile society (Warnath, 1975). Vocational psychologists who previously attempted to match a person's overt aptitudes and characteristics with a job now view the selection of a career in a radically different way (Osipow, 1973). All facets of an individual's existence must be understood, for a career encompasses not only the work a person does, but also his/her total life style (Gysbers and Moore, 1975; Warnath, 1975).

Nature of the Problem

The main question addressed in this study is that when adolescents anticipate deflection from an ideal career choice, do they form more realistic aspirations in the same field?

The literature (reviewed in detail in Chapter II) reveals a plethora of studies on level of career choice with either idealistic aspiration or realistic aspiration but rarely both. No studies were found together using only occupational field.

Of particular interest to this study is the discrepancy between ideal occupational choice and real occupational choice. A review of the literature has shown that the discrepancy in field of occupational choice has not been

extensively studied. In one study Hamburger (1957) concluded that there were no significant differences between aspirations and expectations of ninth grade boys in his sample. Stephenson (1958) found that the wishes (occupational aspiration) and the plans (occupational expectations) of most of his 1000 ninth grade boys and girls were different. Studies on these two components have produced mixed and inconclusive results.

As far as can be ascertained, few studies have taken into account a grade spread, sex differences or locus of control differences. Career development theory assumes that individuals career choices become more realistic and crystallized as one approaches their senior year in school (Ginzberg et al., 1951). As well, females are supposed to be more decisive in their selection of careers than males. However, factors like locus of control have not received much attention in the area of career choice (Burlin, 1976).

Also of interest to this study is the part that reasons for career choices play in the selection of both ideal and real occupational choice. O'Neil, Ohlde, Tollefson, Burke, Peggott and Watts (1980), suggested that there exists incomplete and inconclusive data on the many reasons for career choice in terms of gender and grade level. In one study, Borgen and Young (1982) examined the career perceptions of students in grades 5 to 12 and offered

some support for a developmental perspective of the ways in which adolescents process pertinent career information. However, it appears that there is little research to date relating specific reasons for both ideal and real occupational choices of adolescent students.

Another aspect shared by the majority of the published studies in the area of career choice is that samples were drawn mainly from specific cultural groups. As will be noted in the next chapter, the subjects were adolescents in specific grades. Furthermore, the subjects comprise on the whole fairly homogeneous groups, with middle class background, average ability, and average educational opportunities. Few investigations have been conducted in Canada.

In summary, no studies were found that (a) examined discrepancies in field between ideal and real occupational choice, and (b) examined the nature of those discrepancies across grade, gender, and locus of control. It was the purpose of this investigation to address these items.

Statement of the Problem

This study was designed to investigate the extent of agreement in occupational field between career aspiration and career expectation of adolescents and to ascertain whether or

not this agreement in field was influenced by grade, gender, or locus of control considered separately and together. A secondary purpose was to examine the reasons for occupational choice regarding career aspiration and career expectation, and to determine if such reasons were influenced by grade, gender, or locus of control.

More specifically, this study was designed to provide data relative to the following eight main and two subsidiary questions:

Main Questions

1. Are there differences between occupational fields for the ideal and real occupational choices of adolescent students?
2. Are there differences between occupational fields for the ideal and real occupational choices for male and female adolescent students?
3. Are there differences between occupational fields for the ideal and real occupational choices of adolescent students across grade?
4. Are there differences between occupational fields for the ideal and real occupational choices of internal and external adolescent students?

5. Are there differences between the occupational fields for the ideal and real occupational choices of male and female adolescent students across grade?
6. Are there differences between the occupational fields for the ideal and real occupational choices of internal and external adolescent students across grade level?
7. Are there differences between the occupational fields for the ideal and real occupational choices of adolescent students when comparing gender and locus of control?
8. Are there differences between the occupational fields for ideal and real occupational choices of adolescent students when comparing grade, gender, and locus of control together?

Subsidiary Questions

1. Are there differences between the reasons for ideal and real occupational choices of adolescent students?
2. Are there differences between the reasons for ideal and real occupational choices of adolescent students according to:
   1. grade
   2. gender
   3. locus of control

Definition of Terms

The following operational definitions were adopted for use in the present study:

An adolescent was an individual aged 13 years through 19 years at the time of the study.

Agreement between ideal and real occupational choice was defined as the agreement in occupational field for two occupational choices. (That is, when the ideal and real occupational choices are identical in family and unit group as classified by the Canadian Classification and Dictionary of Occupations - CCDO). Specifically each occupation was classified according to a seven digit code number taken from the CCDO. When the first three digits of the code number for both ideal and real occupational choice matched exactly then there was occupational agreement. When one or more of the first three digits did not match then there was no occupational agreement.

Occupational aspiration referred to the selection of an occupation from the alternative occupations available in an individual's field of awareness. Field of occupational aspiration included the specific occupational choices indicated by subjects on the Ideal and Real Occupational Questionnaire (see Appendix B), classified within the framework of the

Canadian Classification and Dictionary of Occupations.

a. Ideal occupational aspiration was the choice of occupation an individual makes given optimally supportive conditions, e.g., no restraints in ability, economics, talent, or opportunities to obtain further necessary education and training.

b. Real occupational aspiration was the choice of occupation an individual makes given actual conditions, e.g., restraints in ability, economics, talent, or opportunities to obtain further necessary education and training.

The definition for Locus of control approved by Rotter (1966) was adopted. Locus of control generally, refers to whether an individual perceives his/her behaviors and thought patterns as causally linked to consequences (control) or not causally linked to consequences (chance). Respectively, these two conditions specify that the "locus of control" lies either within or outside of the power of the individual. Internal control indicates that the person perceives that he/she is in control of his/her fate and that effort and reward will be correlated, while external control indicates that the person perceives that powerful others or "the system" determine how well he/she can do, and that rewards are distributed by others in a random fashion (Rotter, 1966).

Occupation was defined as a collection of jobs sufficiently

similar in their main task to be grouped under a common title for classification purposes. The Canadian Classification and Dictionary of Occupations (CCDO) refers to a classification system in which the basic principle of classification is that of the kind of work performed, but to clarify further the nature of the occupations, other factors are taken into account, such as materials or equipment used or produced, standards met, education or training required, working environment, services rendered and relationship to other workers.

Vocation was defined as a specific work role (Tolbert, 1974).

Overview of the Study

The balance of this thesis is organized in four chapters. Relevant, theoretical and empirical literature are reviewed in Chapter II. This review pertains to: (a) occupational aspirations and expectations of adolescents, and (b) locus of control, and concludes with presentation of the research hypotheses corresponding to the research questions asked in the present chapter and drawn from the literature review.

The research methodology is described in Chapter III. This includes a description of the research design, instruments used, sample, as well as data collection and data analyses

procedures. The results presented in Chapter IV are organized in terms of the research hypothesis initially presented in Chapter II. Finally, conclusions, implications, and suggestions for further research are discussed in Chapter V.

Chapter II

Review of Related Literature

In this chapter theoretical and empirical studies from two major areas of the literature are examined, and each is related to the primary issues under consideration in this research. The areas examined are: (a) career aspiration and career expectation in adolescents, and (b) locus of control.

Career Aspiration and Career Expectation

Although this study was concerned with field of occupational choice a review of the literature indicated little research on field of choice. Most of the studies measure level of occupational choice in terms of status. A few of the results reported on level may have implications for shifts in occupational field; these studies are included in this review.

The differences between career aspirations or preferences and expectations have been discussed by various educational researchers. Many have attempted to offer reasons for these differences such as socio-economic status, gender, and ethnicity. Kuvlesky and Bealer (1966) suggested the use of the terms "aspiration" and "expectation" to identify these

two components or dimensions of occupational choice. Haller (1968) contended that "idealistic aspirations" and "realistic aspirations" are less confusing terms and are more closely linked with traditional usage in social psychology.

Deosaran (1975) offers a definitional observation of the distinction between the two concepts:

> In the first place, students' aspirations have been discussed more widely and subjected to more intensive research than expectations. Technically, while "aspiration" refers to what a student would like to do, or the goal which he would like to attain, "expectation" is viewed as a more "realistic" choice of action or goal. (p. 9)

Regardless of how one chooses to solve the labelling problem, investigators increasingly have taken note of the incongruities in occupational level between the kinds of occupations adolescents would like to enter and the ones they actually expect to enter (Bogie, 1977). Such discrepancies in occupational level, or anticipated career goal deflections, have been noted in earlier stages of career planning and among high school senior (Cosby and Picou, 1971; Glick, 1964; Stephenson, 1957). Furthermore, early studies by Blau et al., 1956; Glick, 1964; and Stephenson, 1957, verify the fact that adolescents often distinguish between occupations they desire

to have and occupations they expect to enter.

This study is concerned with the career plans of the respondents, that is, with those careers that adolescents desire or aspire to and those they expect to enter or anticipate entering in the future. Explanatory models of occupational choice have generally analyzed the occupational decision-making process in terms of multiple influence emanating from sociocultural and social psychological sources and from the situational or environmental context (Ginzberg et al., 1951; Sewell and Armer, 1966; Slocum, 1959). Furthermore, this decision making process has frequently been considered either in terms of stages of development or as a developmental sequence in which the crystallization of occupational choice represents a series of decisions made over a period of years rather than an accidental decision stemming from a single episode (Blau et al., 1956; Ginzberg et al., 1951; Musgrave, 1967; and Rogers, 1966). According to this conception, occupational status orientations become increasingly realistic as the adolescents progress through various stages of occupational selection. Ginzberg et al., (1951) referred to this "realistic stage of development" as one of compromise in which interests, capacities, values, and opportunities are taken into consideration.

The critical period in the transition from the tentative

to the realistic stage (approximately the senior year in high school) is a transition from idealistic to realistic choice (Ginzberg, 1951). Super (1953) elaborated on the realistic nature of compromise in the development of occupational choice, saying that the crux of the problem lies within the nature of the compromise between self and reality. Similarly, Beilin (1955) referred to the shift from egocentric to social behavior where he posits an increase of realism with age in that, the individual takes the social reality more into account in making a choice and presumably the choices themselves become more realistic.

Thus, during the realistic stage of occupational choice, the adolescent not only selects a future career but makes decisions that should facilitate career placement. Blau et al., (1956) stated that:

> Each decision is governed by the way in which the individual compromises his ideal preference and his actual expectations of being able to enter a given occupation, the latter being conditioned by previous rejections and other experiences. (p. 536)

Furthermore, adolescents become increasingly cognizant of the prerequisites and means for placement in specific occupations as they approach high school graduation (Cosby and Picou 1971).

Blau et al., (1956) suggested that realistic alternatives emerge as individuals compromise their ideal preferences with actual expectations. Thus, as youngsters advance through the various stages of occupational choice, many will become increasingly cognizant of various barriers to their idealistic occupational aspirations, and accordingly, will begin to adjust those aspirations. These aspirations and expectations are thought to become more realistic and more focused with age and grade. Furthermore, there is a narrowing of the range of occupations that an individual considers acceptable while the individual's commitment to a particular occupational goal or goals tends to increase. Brinkerhoff and Kunz (1972), for example, describe perceived barriers to occupational choice in terms of age, sex, race, ability, number of positions available, socio-economic status, and social influence. They found that when a person reduces his/her aspiration (or alters it) he/she is considering the barriers to the occupation and not the prestige of the occupation. Kuvlesky and Ohlendorf (1968) in examining occupational orientations of negro boys suggested perception of educational opportunities, levels of occupational knowledge, self image, parental encouragement and peer support as critical considerations in the compromise process when selecting an occupation.

Although there is relatively little empirical evidence,

research indicates that anticipated deflection from idealistic choice can be predicted from socioeconomic background and intelligence of the youngster (Caro and Pihlbald, 1964; Speery and Kivett, 1964; and Stephenson, 1957). Cosby and Picou (1971) used level of occupational choice and reported that from thirty to fifty percent of the adolescents in various study groups they reviewed anticipated deflection from idealistic career choices.

Bogie (1976) examined the extent of occupational aspiration-expectation discrepancies among high school seniors. He administered an open ended questionnaire to 1835 Kentucky high school seniors (920 males and 915 females) in the spring of their graduation year. The population in Bogie's study was drawn from 15 non-metropolitan county high school in three different socioeconomic areas of the state. Included were a relatively deprived economic area, a stable area and a semi-rural industrialized area in Kentucky. The categories of occupations were similar to those of Cosby and Picou (1971). The results of the study showed that almost forty percent (n = 267) of the students with professional aspirations actually expected to enter occupations somewhat lower in status. For males, the bulk of those classified as deflecting (n = 137) expected to enter skilled and semi-skilled occupations (66.4 percent) and white collar occupations (28.5

percent). For females, the largest proportion of those indicating a lowering of aspiration levels (n = 130) anticipated entrance into white collar positions (58.8 percent); slightly more than 28 percent expected to become housewives. The results revealed that discrepancies occurred with less frequency for males than females (35.7 percent to 44.7 percent). For males aspiration expectation discrepancies varied inversely with family socioeconomic status, mental ability, and scholastic performance. The only variable closely association with aspiration expectation discrepancies for females was family socioeconomic status.

Glaze (1979) examined the factors which influenced career choice and future orientation of females. She sampled 1,167 girls from grades 11, 12, and 13 in both public and private high schools in Ontario. Glaze found that almost half of the girls aspired to upper class occupations while two out of five aspired to non-traditional occupations. Less than a third of the girls, however, expected to have upper class occupations; one girl in four expected to have a non-traditional occupation. Glaze (1979) suggested that among females there are disparities between educational and vocational aspirations and expectations on the basis of social class, status, gender, and ethnicity.

Sinclair, Crouch, and Miller (1974) studied the level of

occupational aspiration-expectation of Australian teenagers, examining the variables of sex, social class, grade level and parent expectations. They administered an open-ended questionnaire to 435 boys and 441 girls ranging from year 6 to year 12. The results indicated that there were clear sex differences in vocational choice. The high school girls' choices were found to cluster to a large extent around what are considered traditional female occupations. The adolescent girls were found to be no more vocationally decisive than the boys, however, and decisiveness increased with grade level for both sexes.

This study also presented evidence suggesting that sex differences interact with social class and parental factors in influencing occupational choice. There was fairly close agreement on level of occupational choice between student occupational expectation and aspiration: the only significant difference occurred with regard to the glamour occupations (model, pop-star, air hostess, astronaut). Twenty-nine percent of the boys and twenty-four percent of the girls aspired to glamour occupations while only twelve percent of both sexes expected them. There was evidence that occupational expectations become somewhat more realistic over time.

Burlin (1976) investigated the relationship of parental

education, maternal work, and occupational status to the occupational aspirations (classified as Innovative, Moderate, and Traditional) of adolescent females. Innovative occupations are those in which fewer than thirty percent of the workers are women. Moderate occupations are those in which thirty to fifty percent of the workers are women. Traditional occupations are those in which more than fifty percent of the workers are women. Innovative choices were made significantly more often as an ideal aspiration than as a real aspiration, and, reciprocally, traditional occupations were chosen less often as an ideal aspiration than as a real aspiration. Significant association was found between occupational aspiration and father's education and between occupational aspiration and mother's occupational status (traditional or non traditional).

In summary, existing research has dealt more with a shift in level of occupational choice rather than field of occupational choice. The results from shift in level of occupational choice may have some implication to shift in field of occupational choice, but field requires examination on its own.

Career Expectation

An examination of the literature on occupational projections indicates that little attention has been directed toward empirical studies of vocational expectations in which adolescents anticipate entering jobs (Kuvlesky, 1966). Cosby and Picou (1971) studied the vocational expectations of adolescent whites and non-whites in southern states. They sampled 8082 tenth grade students in Alabama, Georgia, Mississippi, and South Carolina. "What kind of jobs do you really expect to have most of your life?" was the open ended question the researchers used to elicit occupational expectation responses. They classified the responses according to three broad goal-level categories: professional, technical, managerial, and glamour responses were classified as "high-level" occupational expectations; "intermediate" occupational expectations included clerical, sales, craftsmen, farmers, and other skilled workers; "low-level" expectations consisted of operative, service workers, labour, and unskilled workers. Their results demonstrated that fifty percent of the total sample gave responses indicating "high level" vocational expectations. The level of expectation among the more disadvantaged students was also found to be relatively high; for example, forty-nine percent of the non-white respondents

and forty-five percent of the rural respondents manifested high level vocational expectation. A direct relationship was observed between the level of vocational expectation and size of the community (Harrison, 1969; Sewell and Orienstein, 1965). They also found that students whose fathers worked in high level occupations had significantly higher vocational expectations than others. Likewise, a large proportion of respondents whose father had high levels of educational attainment were found to have high vocational expectations.

In summary, research studies in the area of career aspiration and career expectation have shown that the conceptualization of careers and career choice is a very personalized and complex process. Indications from research are that adolescents gather and process a great deal of information about careers in relation to self. They have an increased knowledge about themselves and the world of work. Adolescents tend to develop more complex information search strategies and a more elaborate rationale supporting their choices.

There is also evidence of a developmental pattern in career perception from adolescence through adulthood. At each level of development a career decision involves selection and processing of information in a unique way. This process of career selection may follow the identified stages of

cognitive and psychosocial development as outlined by Piaget (1948) and Erickson (1954).

It may be concluded that career choice exerts a great influence on the vocational development of the high school student, since it is tied not only to future educational and career plans but also to the student's self-perception. It also seems evident that career choices are closely associated with individual, societal, familial, socioeconomic, situational and psychosocial-emotional factors and that any study of career choice must take all these factors into account (O'Neil et al., 1980). One of the psychosocial factors which is focused on specifically in this study is locus of control.

Locus of Control

The theorist who initially gave direction to the concept of locus of control was Alfred Adler (Lefcourt, 1970). His concern was for people to become more effective in controlling their personal worlds (Ansbacher and Ansbacher, 1956). Phares (1957) developed the first scale for measuring Internality-Externality.

Locus of control, as postulated by Rotter (1966), refers to the degree to which individuals perceive that they have

control over their environment. In general, it has been observed that individuals differ in their perception of locus of control. Individuals at one end of the continuum, internals, tend to perceive an outcome of their behavior to be a consequence of their own actions. Individuals at the other extreme, externals, tend to perceive that behavioral outcome is more likely to be due to fate, luck, and/or powerful others.

Specifically, Rotter (1966) has described a dimension of control of reinforcement. He remarked that:

> When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredicatable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labeled this a belief in external control. If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in internal control. (p. 1)

Most locus of control investigations have been conducted with college student samples, while some studies have used samples of children, the elderly, and clinical groups

(Lefcourt 1976). A review of the literature has shown that only nine studies have involved adolescents as subjects.

Research in the area of locus of control has largely focused upon the investigation of the relationship between the perception of locus of control and various behaviors, attitudes, and/or personality characteristics. (Joe, 1971; Lefcourt, 1966; Phares, 1975; Rotter, 1966).

The Internal-External Control Scale used in the present study was developed by Rotter, Seeman, and Levirant in 1962. Originally, it consisted of 100 forced choice items concerning the subject's beliefs regarding perceived "locus of control". After a series of factor and item analyses, the scale was reduced to 23 items, each of which correlated highly with behavioral predictors, plus six filler items (Lefcourt, 1970).

Locus of control has been found to be related to a number of other variables. For example, there are distinct personality characteristics which appear to be related to locus of control. Hersch and Scheibe (1967) compared scores on the California Psychological Inventory (Gough, 1964), (a measure of psychological health), to locus of control scores. Internals were seen as dominant individuals, tolerant of others, making good impressions, sociable, intelligent, assertive, independent, industrious, highly efficient, and achievement motivated. Other studies seem to show that internals are repressors,

i.e. they forget their failures, while externals are sensitizers, the implication being that externals have accepted their failures as being caused by occurrences outside themselves and have no need, therefore, to repress these incidents (Efran, 1964; Tolor and Reznikoff, 1967).

Many ethnic and social class variables have also been related to locus of control scores. Studies consistently report that blacks have a higher rate of external personalities than whites (Battle and Rotter, 1963; Lefcourt, 1965). Ducette and Wolk (1973) found that "internal" black adolescents have lower occupational aspirations and cognitive estimations than "internal" white adolescents. In a study comparing "hard-core" unemployed males of various ethnic origins, Scott and Phelen (1969) noted that unemployed whites were significantly more internally oriented than unemployed Blacks or Mexican-Americans. Furthermore, these unemployed males tended to be more externally oriented than white middle class college students.

Cognitive Reactions

Some measures of locus of control are related to achievement and they would tend to indicate that internal subjects would be more decisive in academic decisions. In addition perception of locus of control tends to be linked

with different cognitive reactions. Individuals who believe that they can influence their environment will actively seek ways to control that environment when control can be instrumental in the attainment of their goals. In order to manipulate the environment effectively, individuals must be able to collect and use relevant information. In career selection, for example, the ability to collect and use information implies that the individual pays attention to it, is able to distinguish relevant from irrelevant information, is able to extract information efficiently even from ambiguous situations, and is capable of organizing and utilizing the collected information. If we assume that internal individuals possess the aforementioned abilities to a greater extent than do externals, then we may expect that success-motivated internals will tend to engage more vigorously in the collection and processing of information which can help them during the pursuit of a career. Conversely, we may expect that external individuals, who believe that they cannot influence the environment, do not see as much utility in collecting task-oriented information in order to change their own performance within a career selection context.

A series of studies have focused upon patterns of cognitive reactions displayed by internals and externals.

Seeman (1963) found that internals are superior to externals in recall of information which was relevant to the attainment of personal goals. Davis and Phares (1967) found that internals not only recall more information than externals, but also actively engage in seeking additional relevant information, especially with respect to an ambiguous situation.

In another study, Crandall and Lacey (1972) noted that internals, especially girls, perform better and more efficiently on the Embedded Figure Test, which requires close attention to stimulus cues, sorting of relevant from irrelevant information, and analytic use of that information. In the same vein, Du Cette and Wolk (1973) supported the contention that internal subjects are more sensitive to task-oriented stimuli. They observed that internals are superior to externals in utilization of previous experience in order to improve current performance, in the recall of successes following the presentation of feedback, and in forming a successful problem-solving strategy the solution of which depended on utilization of subtle environmental cues. In summary, internals extracted, recalled, and utilized task linked information in a superior fashion. Similarly, a study by Bottinelli and Weizmann (1973) suggests that internals utilize information more effectively than externals within a task oriented framework.

Gozali, Cleary, Wallster and Gozali (1973) noted that

internals use specific identifiable test making strategies that result in high achievement scores. Pines and Julian (1972) lend additional support to Gozali's findings. They observed that while internals appear to focus on task requirements as a way of maximizing information pursuant to successful task performance, externals appear to be less interested in task-related information and more concerned about ascertaining and complying with the social demands of the situation.

In summary there seems to be evidence from the literature research that locus of control might be a factor which would influence the discrepancy between career aspiration and career expectation. Only one study, using grade eleven girls, (Burlin, 1976), was found in the literature which related the discrepancy in level for career aspiration and expectation and how this discrepancy varied on internal and external subjects. No studies were found linking this variable to a discrepancy in field between career aspiration and expectation.

Level of Aspiration

Perception of locus of control has also been found to be related to level of aspiration. Gurin, Gurin, Lao, and Beattie (1969), and Lao (1970), for example, observed that

students whose orientation was internal were characterized by higher educational expectations and aspirations than were students whose orientation was external. It is possible that individuals who believe that they can control their own environment also believe that, since success depends on them, they can achieve more than externals who believe that they are dependent on the whim and desires of other people or events. Doucette and Wolk (1972) found that internal white females had higher occupational aspiration levels than did external white females.

Bar-Tal, Kfir, Bar-Zohar and Chen (1980), held the influence of socioeconomic status constant and investigated the relationship between locus of control and academic achievement, anxiety, and level of aspiration. They sampled 2438 ninth grade Israel-Jewish students whose fathers' extraction was Asian, African, European, American or Israeli. They found that, in general, internals tend to attain greater academic achievement, to express less anxiety, and to have higher level of aspiration, and the perception of locus of control appears to be accentuated among students of Asian or African origin to a greater extent than among students of European, American, or Israeli origin.

Occupational Choice

Burlin (1976) investigated the relationship of locus of control to ideal and real occupational aspirations of adolescent females. The results show that those who were classified as internals aspired to an innovative occupation (those in which fewer than thirty percent of the workers are women) fifty-one percent of the time in their ideal choice. In their real choice the same females aspired to an innovative occupation only thirty-two percent of the time. There was a strong relationship found between externality and aspiring to a moderate occupation (those in which thirty to fifty percent of the workers are women) in the ideal choice. Many more externals than internals aspired to a moderate occupation. Internals tended to aspire either to an innovative or traditional occupation (those in which more than fifty percent of the workers are women) whereas externals were distributed more or less equally among the three categories.

A significant relationship was found between internal-external control and the presence or absence of discrepancy between ideal and real choices. Two associations stood out in the analysis of this data: (a) more internals than externals aspired to an innovative occupation in both their ideal and real selections and (b) many more externals than internals

moved from a moderate occupation in their ideal occupational aspiration to a traditional occupation in their real occupational aspiration.

In summary, locus of control appears to be related to certain personality, ethnic, social, and adjustment variables; however, inconsistent findings exist in terms of its relationship to female achievement and/or aspiration. Furthermore, it seems evident that from the studies on career aspiration and locus of control regarding level of occupational choice there may be a discrepancy between career aspiration and career expectation for internal and external subjects. Locus of control may account for the discrepancy in level as well as field although there is no direct evidence.

Research Hypothesis

Most studies comparing career aspiration and career expectation look at differences in level between the two. No studies were found comparing career aspiration and expectation together using only occupational field. The hypotheses generated for this study reflect an attempt to investigate shifts in field when comparing career aspiration and career expectation for adolescents ranging in age from 13 to 19.

Hypothesis 1

There is a difference between the occupational field for the ideal and real occupational choices of adolescent students.

Based on the literature surveyed there was some reason to believe that there would be discrepancy in occupational field between ideal and real occupational choices. Cooley and Lohnes (1968), presented data that showed with few exceptions at high school level youngsters more often shift between fields at the same level rather than moving up or down within a field. Gottfredson (1979), reported that there are large shifts in aspirations for field of work occuring among males ages 15 and 29. This idea is further reinforced by Kelso (1975). Gottfredson (1981), maintained that when put in a position of having to be realistic people will tend to sacrifice interest in field of work to maintain sextype and prestige of occupation. In a recent study, Gottfredson and Becker, (1981) indicated that men change their aspirations for field of work to match jobs they hold more often than they change their jobs to match aspirations.

Hypothesis 2

There is a difference between the occupational field for

the ideal and real occupational choices of male and female adolescent students.

It seems that there would be a greater difference in the occupational fields between ideal and real occupational choice for males, but not for females. The literature examined indicated that the discrepancy in level and field between ideal and real occupational choice occurred more frequently for males (Sinclair et al., 1971; Stephenson, 1957). It was also suggested that more adolescent girls were vocationally decisive compared to boys (Hollender, 1971). One explanation for this was that adolescent girls, in their role as socialized females, had fewer real vocational alternatives open to them, and thus were able to be more decisive. The literature suggested that females perceive greater barriers to an occupation than do males in the achievement of society's most prestigious occupational levels (Brinkerhoff and Kunz, 1972).

Hypothesis 3

There is a difference between the occupational field for the ideal and real occupational choices of adolescent students across grade.

Based on the literature surveyed on level of occupational choice, there was some reason to believe that at the senior

grades there would be less discrepancy in occupational fields between ideal and real occupational choice than at the junior grades. Previous studies on level of occupational choice indicated that vocational decisiveness increased with grade level (Hollender, 1971). Sinclair et al., (1972), indicated that the match between ideal and real occupational choice was more frequent at grade 10 and 12. Ginzberg (1951) pointed out that the critical period in the transition to the realistic stage for adolescence was in the senior years of high school. Super (1953) and Beilen (1955) also supported the concept of adolescents becoming more realistic in occupational choice during the senior years.

Hypothesis 4

There is a difference between the occupational field for the ideal and real occupational choices of internal and external adolescent students.

It appears that to date only one study has been done relating ideal occupational aspiration and real occupational aspiration to locus of control. However, on the basis of other literature surveyed, it seemed possible that adolescents who had an internal locus of control would have a closer match in the occupational fields between ideal and real occupations than

adolescents who had an external locus of control. Burlin (1976) found that for adolescent females there was a significant relationship between internal-external locus of control and the presence or absence of discrepancy between ideal and real occupational choices. It would seem that adolescents with an internal locus of control, when choosing an occupation, are able to free themselves from environmental constraints and be more realistic and decisive in choosing their ideal and real occupational choice.

Hypothesis 5

There is a difference between the occupational field for the ideal and real occupational choices of male and female adolescent students across grade.

It seems likely that there would be less discrepancy in the occupational fields between ideal and real occupations at the senior level for both males and females than at the junior level. There was reason to believe males would have a greater discrepancy in occupational fields that when matching ideal and real occupational choice than females. The literature on level of occupational choice suggested that there was a lack of reality orientation in the junior grades and thus occupational fields would not match when examining ideal and

occupational choice. Dillard and Perrin (1980) suggested that as adolescents move up the grade ladder their career choice attitudes developmentally change and approach crystallization as different educational experiences were encountered. Ginzberg et al., (1951) suggested that as adolescents move from stage to stage, their career choices were thought to become more realistic and more focused.

Hypothesis 6

There is a difference between the occupational field for the ideal and real occupational choices of internal and external adolescent students across grade.

It appears that there has been no research done relating the match in occupational field of ideal and real occupational choice and locus of control at each grade level. However, it would appear that internals at the senior level would match occupational choices more frequently than internals or externals at the junior level. The seniors would be more realistic and focused in career choice as they would tend to make an adjustment of their objectives with personal resources. In addition, senior externals would be less realistic than internals at the junior levels.

Hypothesis 7

There is a difference between the occupational field for the ideal and real occupational choices of adolescent students when comparing gender and locus of control.

From the literature, it seems that male internals may match occupational choices in field more frequently than male externals and either internal or external females. Burlin (1976) suggested that although females may aspire to greater heights their chances of achieving their aspiration are affected by many different social-psychological variables.

Hypothesis 8

There is a difference between the occupational field for the ideal and real occupational choices of adolescent students when comparing gender, grade, and locus of control together.

There appeared to be no research in occupational field relating the match of ideal and real occupational choices of adolescent students to locus of control, grade, and gender. However, based on the literature surveyed, it seemed possible that the factors previously mentioned could be significantly related to the match in field of ideal and real occupational choices. When considering the factors individually, the

results from the literature suggested a relationship to occupational choice.

Subsidiary Question 1

There is a difference between the reasons for ideal and real occupational choice of adolescent students.

It appears that there has been little research to date relating specific reasons for both ideal and real occupational choices of adolescent students. It seems likely that the reasons for adolescents ideal occupational choice would reflect their fantasy aspirations. The reasons for real occupational choice could in fact reflect very concrete realistic reasons which in turn may reflect the adolescents perceived barriers and restrictions to their occupational choice.

Subsidiary Question 2

There is a difference between the reasons for ideal and real occupational choice of adolescent students according to:

1. grade
2. gender
3. locus of control
4. grade/gender

5. gender/locus of control
6. grade/locus of control
7. grade/gender/locus of control

It appeared that to date no studies had been done relating reasons for both ideal occupational choice and real occupational choice to the above factors. However, on the basis of the vocational literature surveyed it seemed likely that there would be a difference in the reasons for vocational choice between males and females. It was evident from the literature on vocational choice that there was an increased social awareness in the response of females regarding vocational choice. In addition, females are more vocationally decisive and thus, may be decisive in reasons for career choice (Hollender, 1971; Sinclair et al., 1977).

It seemed possible that there would be a strong approximation between the specific reasons considered in vocational selection as students mature and move through successive developmental stages. As adolescents approach high school graduation their career choices are believed to approach realism and become crystallized and specific (Dillard and Perrin, 1980). A study by Borgen and Young (1980) regarding the developmental components of career information processing, showed that responses which were indicative of the students' knowledge of interest, aptitudes and abilities peaked in grade

10, but continued to be relatively important in grades 11 and 12. Thus, it may be suggested that more realistic reasons for occupational choice would be given at the senior grades by both males and females.

On the basis of literature surveyed, it seems possible that locus of control could influence the reasons for career choice. Since internals perceive an ability to have control over their environment, one might assume that an individual who had an internal locus of control orientation would be more decisive in choosing a career. As well, internals may have more intrinsic reasons for career choice than externals.

It seemed likely that male and female adolescents in the senior grades would be more definite in their reasons for occupational choice than male and female adolescents at the junior level. The reasons for occupational choice at the senior level would be intensive as they are more realistic in their choices than those at the junior level. The adolescents in the junior grades would offer extrinsic responses as they are less aware of their motives for selecting vocations. Powell and Bloom (1962) suggest that adolescents are not aware of the motives for selecting occupations and cannot recognize the inconsistency of motive and ability. It seems that girls at the senior level would choose reasons for occupational choice based on social awareness.

It seems that internal males at the senior grades would give more intrinsic reasons for occupational selection than internal females or external males and females. Externals would tend to indicate reasons that were more extrinsic. The junior grades would lack a reality orientation of responses and give extrinsic reasons.

There was some reason to believe that internal males would offer responses different than those of external males or internal or external females. Futhermore, it seems that external males and females would offer responses that were extrinsic in nature.

Based on the literature surveyed, there was some reason to believe that the factors of locus of control, grade, and gender, conducted together influence the reasons for ideal and real occupational choice. Although, to date no specific study has examined these three factors, O'Neil et al., (1980) suggested that all factors are taken into account when making a career decision.

Chapter III

Methodology

This chapter consists of three parts. The first section presents a brief description of the various instruments and a discussion of the rationale for their choice. The second part describes the sample and the procedure for the collection of research data. The last section deals with the statistical treatment of the data.

Instrumentation

Measurement of Ideal and Real Occupational Choice

The questions of this study required the choice of a questionnaire that permitted comparison between choice of probable (expected) occupation and ideal occupation. The instrument had to be fairly straight forward and easy to administer to groups of students in grades 8 to 12.

Many researchers of the occupational choice process frame their discussion in terms of different types or dimensions of occupational choices (e.g. Burlin, 1976; Chiu, 1976; Cosby and Picou, 1973; Dillard and Perrin, 1980; Kuvlesky and Bealer, 1966; Kuvlesky and Reynolds, 1970;

Miller and Haller, 1963, 1964; Stephenson, 1957). Although the conceptualizations vary, the two dimensions of aspiration and expectation have been widely recognized and utilized in empirical research.

It was thought that rather than using open-ended questions such as those found in the literature it would be better to construct specific questions more suited to the goals of this study. Each participant was asked to state career aspirations and expectations in answer to the following: (a) "It is interesting to think about the occupation which would be most desirable to you, without having to consider limiting factors such as money, ability and talent, opportunities to obtain further education and training, et cetera. This may sound impossible, but if you were completely free to choose, what would be your ideal occupation? Be as specific as possible", and (b) "What occupation are you most likely to enter? That is, looking ahead into the future from where you are now and what you are doing in school now, what occupation do you think you are most likely to take up after you have completed your education? Be as specific as possible". These two questions, phrased as stated, were the only two questions asked in obtaining occupational choices of the subjects.

The first of the dimensions, ideal occupational choice, referred to the individual's choice of an occupation he/she

desired or wished to enter. The second dimension, real occupational choice, referred to the individuals choice of an occupation he/she expected or anticipated entering when he/she completed his/her education.

Measurement of Probability of Attaining Occupational Choice

In order to reaffirm the concreteness of the subjects' occupational choices the subjects were asked to indicate on a scale from 1 to 10 an estimation of their probability of ever obtaining their ideal and real occupational choices.

Measurement of Reasons for Career Choice

After the students had indicated the probability of attaining their career choice, they were asked to give reasons why they thought their chances were high or low of obtaining their ideal and real occupational choices.

Measurement of Locus of Control

The construct of locus of control was measured using the instrument developed by Rotter (1966). The dichotomy that is made in locus of control theory is between internal and

external control, that is, the degree of contol one perceives in regard to the consequences of his/her behavior (Ducette and Wolk, 1972). The person at the "internal" end of the continuum perceives outcomes to be contingent upon his/her own behavior, capacities, or attributes. The person at the "external" pole believes the outcomes are not under his/her personal control but rather under the control of powerful others, luck, chance, and fate. (Gozali et al., 1973).

Originally, the Internal-External Control Scale consisted of 100 forced choice items. A factor analysis was performed by Liverant (1964) on the scale which yielded two major factors, one accounting for fifty-three percent of the test variance. On the basis of this analysis, the item number was reduced to 60. It was determined that the scale correlated highly with the Marlow-Crowne Social Desirability Scale (Crowne and Marlow, 1964) and that the subscales were not generating independent production. This was corrected by means of a series of item analyses, further reducing the scale to 23 items, each of which correlated highly with behavioral predictions. The final correlation with the Marlow-Crowne Social Desirability Scale was reported to be between -.07 and -.35 (Rotter, 1966, p. 10).

The Internal-External Control Scale used in the present study included the 23 items mentioned above plus six filler

items. The filler items are intended to make the purpose of the test somewhat more ambiguous (Rotter, 1966). Each item consisted of two statements of which the examinee must select the one he/she believes to be more true. With six filler items included, the maximum score is 23. The higher the raw score, the greater the perception that reinforcement or rewards in life generally are externally controlled.

Reliability measures reported for the Internal-External (I-E) Control Scale are consistent and acceptable. Reported test-retest reliabilities range between .49 and .83 for varying samples and intervening time periods (Hersch and Scheibe, 1967; Joe, 1971, Lefcourt, 1966; Rotter, 1966).

The ability of the test to discriminate between internal and external perception as measured by the I-E scale is good. Hersch and Scheibe (1967) found nonsignificant correlations between locus of control total scores and three measures of intelligence; Minton (1967) reported that the internal-external scores of sixty-nine males were unrelated to political liberalism or conservatism, "left versus right" ideology or attitudes on international relations. Concurrent validity for the scale is high. The Internal-External Control Scale correlates between .55 and .60 with the James-Phares Likert type scale of locus of control (Blackman, 1962). It correlates with the Adams-Webber (1963) Story Completion Test and also

with the Cardi (1962) measure of locus of control from a semi-structured interview where locus of control was recorded on the basis of judges' ratings. In addition, Dies (1968) found that internal-external rating ascertained from the projective use of the Thematic Appreciation Test correlated 0.8 with the Rotter scale.

Recent findings regarding the relationship between internal-external control and social desirability have been contradictory. Strickland (1967) and Toler and Jalowiec (1968) found nonsignificant correlations between the Internal-External Control Scale and the Marlowe-Crowne Social Desirability Scale (MC-SDS), while Feather (1967) and Altrocchi, Palmer, Hellman, and Davis (1968) reported a significant relationship between Internal-External scores and MC-SDS scores. Similarly, Berzins, Ross and Cohen (1970) reported a correlation of -.23 between the Internal-External Control Scale and Edwards' Social Desirability Scale. These findings suggest that the I-E scale is not totally free of the social desirability set as claimed by Rotter (1966).

Although Rotter (1966) stated that sex differences on the Internal-External Control scale among college students appear to be minimal, a later study by Feather (1967) showed that females earned significantly higher external scores that males at the University of England. This latter finding

is consistent with the one case in which sex differences on the Internal-External Control Scale were noted by Rotter.

Distefano, Pryer, and Smith (1971) reported a significant relationship between I-E scores and age for four adolescent age groups. Mean external control scores for the 8th, 9th, 10th, and 11th grades were 10.7, 9.2, 9.4, and 7.8 respectively. No sex differences were found. The data suggested that the perception of rewards as being externally controlled decreased across the increasing age levels.

The mean scores for internal males on the Internal-External Control Scale reported by Rotter (1966) range from 6.06 to 10.0. The mean scores for internal females reported to range from 5.48 to 9.62. The lowest internal scores reported belong to Peace Corps volunteers and the highest internal scores reported belong to elementary psychology students at the University of Connecticut. Franklin (1963) sampled 1000 male and female adolescents in grades 10, 11, and 12 and reported a combined internal mean score of 8.50.

With few other exceptions (Buck, 1971; Ferguson, 1974; and Martin, 1975), the researchers using locus of control scales have ignored the secondary school level. The adult scales have primarily been used for college populations and the children's scales have been used on elementary children (Bialer, 1961). Grade 8 and grade 12 students have received

the most attention from these locus of control measures and there is a definite lack of studies from grade 9 through 11.

Measurement of Socio-economic Status

The Blishen Socio-economic Indix for Occupations in Canada (1976, 1978) was used in the determination of SES for the subjects' fathers' and mothers' careers. The index is based on Canadian data and takes into account the education and salaries of people in various occupations.

Blishen's 1976 scale was based on the 1971 census data of the male labour force. Blishen judged the index as reliable by comparing it with his 1961 scale (r = .97, p .01) and valid due to the relationship of its ranked scores with the Pineo and Porter (1967) prestige scores for 102 Canadian occupations. The result was an index which listed an individual index score and ranked each of 480 occupational titles (Blishen and McRoberts, 1976).

Blishen's 1978 scale was based on the 1971 census data of the female labour force and correlated .84 with the 1976 scale (Blishen and Carroll, 1978).

Blishen suggested a breakdown of the Index into six classes such that:

6 represents 70 and above (indexed scores) High SES

5 represents 60.0 to 69.9

4 represents 50.0 to 59.9

3 represents 40.0 to 49.9

2 represents 30.0 to 39.9

1 represents below 30 Low SES

This six point rating was used to score the parents' occupations. In the present study, the 1976 male index was used to assign SES ratings to the father's occupation when he was the main wage earner. When the mother of the family was the main wage earner the 1978 female index was used.

Blishen did not have a category for housewives, but his 1978 scale correlated r = .90 with Pineo and Porter's (1967) prestige scale, which in turn correlated r = .98 with Eichlers (1975) prestige scale which did include a scoring for the occupation of housewife. Therefore, the indexed score that Eichler obtained for housewife of .46 was used in the present study and was converted to the appropriate score (3) on the short rating form of Blishen's scale (Sayer, 1980).

General Information

A short one page questionnaire was given to each student to obtain additional descriptive information about age, grade, gender, and father's and mother's occupation.

Procedure

Sample

The sample for this study consisted of 500 students attending a secondary school located in Vancouver, B. C. The school is a modern, well equipped secondary school located in a heavily populated residential area of Vancouver.

The school was attended by 973 students and had arts and science academic programmes and commercial, industrial and community service non-academic programmes. The school had five counsellors, one of whom was a full time counsellor. A career education program was in effect but was not available to grade nine students. The grade nine students spent most of their guidance time learning first aid. At the time of this study the grade eight students had not yet been exposed to a career education program. Fifty males and fifty females from each of grades eight to twelve took part in the study. The age of the students ranged from thirteen years old in grade 8 to eighteen years old in grade 12.

A letter requesting permission to conduct this research was sent to the district superintendent and school principal. When permission was obtained, the students of the school were informed of the career project and were invited to participate

on a voluntary basis. When students identified themselves as wanting to take part in the study, letters describing the study and requesting permission for their son or daughter to participate were sent home to parents.

Collection of Data

The measuring instruments and general information questions were group administered. All material was presented to subjects in a single questionnaire. The data were collected in regular school hour during guidance classes. These classes consisted of small groups of 8 to 15 students which met once each six school days. The questionnaires were administered to the subjects in a one hour session.

All subjects were given similar instructions, with the researcher asking them to answer some questions about their career plans and choices. They were instructed that there were no right or wrong answers to the questions and that the questionnaires would not be marked or graded. Students did not write their names on the questionnaires; a numbering system was used for class identification. They were told that

the questionnaire they were filling out was part of a research project exploring the career choice of high school students. The researcher offered to come back to each class to discuss the results with the students in small groups.

Coding and Preparation of the Data

Classification of Data for Ideal and Real Occupational Choice

The Canadian Classification and Dictionary of Occupations, (1971) was used to categorize the subjects ideal and real occupational choices. The CCDO provides a systematic classification structure in which all occupations in the working population can be categorized. The structure comprises a series of 23 major groups, 81 minor groups, and 498 unit groups, into which over 14,300 occupational titles have been classified in increasingly broader fields of work. Of these, more than 6,700 occupations are defined base titles (commonly occurring occupations), over 3,000 are alternate titles and about 4,600 are given as examples of related titles. Each major, minor and unit group of occupations is separately coded, titled and defined.

Occupations are the narrowest category specifically identified in the classification system, and the definitions

for the individual occupations are integrated in their appropriate unit groups within the classifications. Thus, the classification structure has four levels to enable categorization of occupation. in successively finer detail. A seven digit number is used to represent each occupation, the first two digits delineate the family to which the career belongs, the third represents the minor group, the fourth represents the unit group, and the last three digits provide a unique code number within the classification structure for each occupation. (see Volume I, CCDO). Each subjects' ideal and real occupational choices were coded using this numbering system.

Data Preparation

Rating was completed by four female grade 12 students trained by the researcher. To check the consistency the researcher coded the occupations independently. The check indicated that there were four errors in one thousand responses. Thus, 99.6 percent of the responses were rated accurately by the raters. The data were then transferred to a Fortran Coding Form by the raters, again the coding was verified by the researcher. All subjects' responses were checked for completeness, hand coded, and the coding

checked for accuracy. None of the subjects data were rejected for this study. The data were then keypunched with 100 percent verification. The error rate was less than two percent. The few errors which were found were corrected.

Classification of Reasons for Career Choice

The reasons for career choice were categorized under nine general headings. These headings were adapted from a study by Borgen and Young (1982) who examined career perception of students in grades 5 to 12. The responses were divided into rateable units on the basis that any independent clause or item in an independent clause joined by a conjunction, stated or implied, counted as one response unit. Each unit was assigned to one of the nine categories which follow.

1. Interest: - aptitudes, interest, abilities and temperaments involved in the occupation.
2. Behavior: - activities and behaviors involved in the occupation.
3. Outcomes: - salary, fringe benefits, and other non-occupational outcomes.
4. Career Progress: - steps for entry into, progress

through and exiting an occupation.

5. Self-evaluation: - responses which focus primarily on the self rather than the occupation.
6. Occupational Evaluation: - a simple evaluation of the occupation.
7. Social Relevance: - the meaning which the occupation has for society.
8. Misinformation: - blatent misunderstanding of what the occupation involves.
9. Choice: - a definite statement related to occupational choice.

Data Analysis

Item Analysis

The locus of control scores were item analyzed using the computer program (Laboratory of Educational Research Test Package) (LERTAP)(Nelson, 1974). The LERTAP output of total scores was used as input in subsequent analyses. The correlations between each item and the total internal-external score were examined to determine if all items correlated in

the correct direction. As well, the internal consistency was further checked by computing a Hoyt (1941) estimate of the internal consistency of the full test.

Occupational Agreement

The CCDO numbers for both ideal and real occupational choice were then entered into the computer. The first three digits of the seven digit numbers assigned for ideal occupational choice were subtracted from the first three digits of the seven digit numbers assigned for real occupational choice. If the difference was equal to "0", the result was categorized as a "hit" or a "miss" where the difference was other than "0". This was done in order to measure the occupational field of choice of the subject.

Analysis

Scores for all measures and for the general information questions were tabulated and frequency distributions produced. Means and standard deviations were calculated. A 2 x 5 x 2 (gender-by-grade-by-locus of control) fixed effects analysis of variance was computed to compare the dependent variable (match of ideal and real occupational choice) to the

independent variable grade (all grades), gender, and locus of control. For the purpose of data analyses for the locus of control variable a median split was used to divide the sample.

Eighteen 2 x 5 x 2 (gender-by-grade-by-locus of control) analysis were conducted to compare the dependent variable (reason for occupational choice) to the independent variables, grade, gender, and locus of control. It was decided to use the .05 level of significance for the statistical tests.

The univariate analysis of variance tests were performed using the ANOVA sub-program of Statistical Package for the Social Sciences version 9 (Kitka, 1980). All of the computer analyses were conducted at the University of British Columbia Computer Center on the Amdahl 470 V/8 computer, operating under the Michigan Terminal System (MTS).

Chapter IV

The Presentation and Analysis of Data

This chapter describes the results of the statistical analyses of data and discusses them according to the hypotheses described in Chapter II.

Data were gathered, tabulated, and analyzed according to the procedures outlined in the previous chapter. Frequency tables were produced for all variables; means and standard deviations were calculated for the continuous variables. Each hypothesis and subsidiary question is restated and the results of the analysis are presented.

Description of Sample

The sample used in this study consisted of 500 adolescent students. Two hundred and fifty-two males and two hundred and forty-eight females participated in this study. A breakdown of the school population by grade and gender plus the number of subjects used is shown in Table 1.

Table 1

Total School Population and Sample by Grade and Gender

	Population			Sample		
Grade	Males	Females	Total	Males	Females	Total
8	90	74	164	50	50	100
9	88	103	191	51	49	100
10	116	97	213	51	49	100
11	87	107	194	50	50	100
12	101	110	211	50	50	100
Total	482	491	973	252	248	500

Students' ages ranged from thirteen years old at grade 8 to eighteen years seven months at grade 12. The mean age of the subjects is shown in Table 2.

Table 2

Mean Age of Subjects

	Grade				
Gender	8	9	10	11	12
Males	13.8	14.8	15.9	16.6	17.6
Females	13.8	14.7	15.6	16.7	17.7

The percentage and percentage distribution of fathers or mothers occupation of the students, as measured on the Blishen (1976, 1978) Socio-economic Index, are presented in Table 3 together with corresponding figures for the labour force for British Columbia and Canada. As can be seen the sample highly over-represents the higher income group and under-represents the lower income groups as compared with the provincial and national labour force distribution. Fathers' occupations were measured on the 1976 Blishen index while mothers' occupations were measured on the 1978 index. In each case, the higher of the two socio-economic indices were used as the measure of the socio-economic status of this sample for this study.

Table 3

Percentage and Cumulative Percentage Distribution of Parental Occupations of Subjects as Measured on Blishen's Socio-economic Scale; Corresponding figures for Labour Force for British Columbia and Canada

Socio-economic Index	No. of Occupations N = 500	sample % Percent	sample % Cumulative Percent	B.C. % Percent	B.C. % Cumulative Percent	Canada % Percent	Canada % Cumulative Percent
70.00+	162	32.4	32.4	4.0	4.0	4.0	4.0
60.00-69.99	212	42.4	74.8	4.0	8.0	4.0	8.0
50.00-59.99	92	18.4	93.2	9.0	17.0	9.0	17.0
40.00-49.99	34	6.8	100.0	19.0	36.0	20.0	37.0
30.00-39.99	0	0.0	0.0	31.0	67.0	32.0	69.0
Below-30.00	0	0.0	0.0	33.0	100.0	31.0	100.0

Results of Rotter's Internal-External Control Scale

Items analysis of Rotter's Internal-External Control Scale revealed that there were more subjects in this sample with an internal locus of control than subjects with an external locus of control. (see Table 4). There were 140 male subjects (55.6 percent of the male population) with an internal locus of control, and 132 female subjects (53.2 percent of the female population) with an internal locus of control. The raw scores ranged from 0 to 22 with a mean score of 9.86 and a standard deviation of 4.06 for the study. The median of the sample was 10.077. A Hoyt estimate of internal consistency was computed on the full test. The result was 0.72.

Table 4

Percentage (Number) of Locus of Control

Gender by Grade

	Grade					
	8	9	10	11	12	Total
Locus of Control/Gender						
Internal						
Male	46.0	47.0	68.6	54.0	62.0	55.5
	(23)	(24)	(35)	(27)	(31)	(140)
Female	62.0	51.0	35.2	60.0	56.0	53.2
	(31)	(25)	(18)	(30)	(28)	(132)
Total	54.0	49.0	53.0	57.0	59.0	54.3
	(54)	(49)	(53)	(57)	(59)	(272)
External						
Male	54.0	53.0	31.2	46.0	38.0	44.5
	(27)	(27)	(16)	(23)	(19)	(112)
Female	38.0	49.0	64.8	40.0	44.0	46.8
	(19)	(24)	(31)	(20)	(22)	(116)
Total	46.0	51.0	47.0	43.0	41.6	45.6
	(46)	(51)	(47)	(43)	(41)	(228)

Results Concerning Field of Occupational Choice

The main purpose of this study was to investigate the extent of agreement in occupational field between career aspiration and career expectation and to ascertain whether this agreement was influenced by grade, gender, or locus of control considered separately or together. Table 5 summarizes the relationship between ideal and real occupational choices as revealed by the relative percentage frequencies. As may be seen in Table 5, 35.8 percent of the subjects had occupational agreement, while 64.2 percent of the subjects' ideal and real occupational choices did not agree. Although not shown in Table 5, the grand mean indicated at the .05 level there was a lack of significance between the matching of ideal and real occupational choice and grade, gender, or locus of control. Table 5 also shows that 43.0 percent of the grade 11 students and 39.0 percent of the grade 12 students had their ideal and real occupational choices agree. The grade 9 students had the least percentage agreement with 29.0 percent. In examining gender, 32.1 percent of the male subjects and 39.5 percent of the female subjects had occupational agreement. With respect to locus of control 38.9 percent of the male and female subjects with an internal locus of control had their ideal and real occupations agree, while 32.0 percent of the male and

female subjects with an external locus of control had their ideal and real occupations agree. In examining grade and gender, 48.0 percent of the grade 11 males had occupational agreement while 46.0 percent of the grade 8 females and 42.0 percent of grade 12 females had occupational agreement. The male and female percentages were 19.4 and 23.0 for subjects with an internal locus of control. Subjects with an external locus of control had percentages of 12.7 and 16.5 for males and females respectively.

Table 5

Percentage (Number) of Subjects According to Agreement Between Ideal and Real Occupational Choice for

1. Grade
2. Gender
3. Locus of Control

	Grade					
	8	9	10	11	12	Total
Occupational Agreement						
Internal						
Male	10.0	13.7	17.5	32.0	24.0	19.4
	(5)	(7)	(9)	(16)	(12)	(49)
Female	36.0	18.3	10.4	28.0	22.0	23.0
	(18)	(9)	(5)	(14)	(11)	(57)
Total	8.4	5.9	5.1	11.0	8.4	38.9
	(23)	(16)	(14)	(30)	(23)	(106)
External						
Male	16.0	10.0	10.0	16.0	12.0	12.7
	(8)	(5)	(5)	(8)	(6)	(32)
Female	10.0	16.4	26.7	10.0	20.0	16.5
	(5)	(8)	(13)	(5)	(10)	(41)

Table 5 (continued)

	Grade					
	8	9	10	11	12	Total
Total	5.7	5.7	7.9	5.7	7.0	32.0
	(13)	(13)	(17)	(13)	(16)	(73)
Total Agreement Male	26.0	23.5	27.5	48.0	36.0	32.1
	(13)	(12)	(14)	(24)	(18)	(81)
Total Agreement Female	46.0	34.7	36.7	38.0	42.0	39.5
	(23)	(17)	(18)	(19)	(21)	(98)
Grand Total Agreement	36.0	29.0	32.0	43.0	39.0	35.8
	(36)	(29)	(32)	(43)	(39)	(179)

Tests of Hypotheses

The quantative analyses of hypothesis one indicated that there was a difference in ideal and real occupational choice of adolescence. The results showed that 64.2 percent of the subjects did not have occupational agreement according to field. Only 35.8 percent of the subjects had occupational agreement hence, the hypothesis was supported.

The results of the 2 x 5 x 2 (locus of control-by-grade-by-gender) analysis of variance of the data are in Table 6. The corresponding means and cell sizes are in Appendix C and D. All tests were conducted at the .05 level of significance. As can be seen from Table 6, the hypothesis corresponding to each of the F ratios were not supported. There appears to be no differences in the extent of agreement between ideal and real occupational choices by adolescents attributed to locus of control, grade, and gender when considered separately (main effects) and together (inter-actions). Since there was no significance found no post hoc analyses were carried out.

Table 6

Analysis of Variance for Agreement Between Career Aspiration and Career Expectation by Grade by Gender by Locus of Control

Source of Variation	df	MS	F	p
Main Effects				
Lc	1	0.669	2.954	0.086
Gr	4	0.275	1.215	0.304
Ge	1	0.696	3.072	0.080
2-Way Interactions				
Lc x Gr	4	0.336	1.483	0.206
Lc x Ge	1	0.125	0.550	0.459
Gr x Ge	4	0.299	1.321	0.261
3-Way Interactions				
Lc x Gr x Ge	4	0.234	0.031	0.391
Residual	480	0.227		

Results of Estimated Chances

Probability of Students Obtaining Their Ideal Occupational Choice

Table 7 shows the percentage distribution of chances suggested by students of obtaining their ideal occupational choice. The majority of students (59.4 percent) indicated that they thought their chances were 60 percent or better of obtaining their ideal occupational choice. Furthermore, 49.2 percent of the students thought their chances were 70 percent or better in obtaining their ideal occupational choice.

As can be seen in Table 7, 66.9 percent of the females and 51.9 percent of the males thought their chances were 60 percent or better of obtaining their ideal occupational choice. In addition, students with an internal locus of control (65.1 percent) thought their chances were 60 percent or better of obtaining their ideal occupational choice. Only 48.5 percent of the students with an external locus of control thought that their chances of obtaining their ideal occupational choice were 60 percent or better.

Probability of Students Obtaining Their Real Occupational Choice

Table 7 also shows the distribution of chances by the students of obtaining their real occupational choice. From the table it can be seen that 87.8 percent of the sample thought that their chances of obtaining their real occupational choice were 60 percent or better. The results indicate that 79.2 percent of the sample thought their chances were 70 percent or better of obtaining their real occupational choice.

From Table 7, it can be seen that 96.0 percent of the grade 12 subjects and 92.0 percent of the grade 11 subjects thought their chances of obtaining their real occupational choices were 60 percent or better.

The results in Table 7 show that 88.2 percent of the males and 87.4 percent of the females thought their chances were 60 percent or better of obtaining their real occupational choice.

In addition, Table 7 indicates that 91.4 percent of the students with an internal locus of control thought their chances were 60 percent or better of obtaining their real occupational choice. On the other hand 83.2 percent of those students with an external locus of control thought their chances of obtaining their real occupational choice were 60 percent or better.

Table 7

Probability of Students Obtaining Their

Ideal (I) and Real (R) Occupational Choice

by

1. Grade
2. Gender
3. Locus of Control

1. Grade:

	Grade											
	8		9		10		11		12		Total	
Probability	I	R	I	R	I	R	I	R	I	R	I	R
10	6.0	1.0	5.0	6.0	7.0	6.0	6.0	1.0	5.0	2.0	5.8	3.2
20	9.0	2.0	4.0	0.0	4.0	0.0	9.0	0.0	6.0	0.0	6.4	0.4
30	7.0	3.0	3.0	1.0	6.0	0.0	10.0	0.0	4.0	0.0	6.0	0.8
40	5.0	3.0	9.0	2.0	10.0	0.0	8.0	0.0	5.0	0.0	7.4	1.0
50	21.0	14.0	14.0	8.0	13.0	3.0	13.0	7.0	14.0	2.0	15.0	6.8

Table 7 (continued)

1. Grade:

	Grade											
	8		9		10		11		12		Total	
Probability	I	R	I	R	I	R	I	R	I	R	I	R
60	15.0	15.0	11.0	7.0	10.0	9.0	9.0	6.0	6.0	6.0	10.2	8.6
70	12.0	14.0	17.0	21.0	12.0	15.0	17.0	25.0	17.0	14.0	15.0	17.8
80	17.0	26.0	23.0	29.0	20.0	27.0	12.0	29.0	20.0	32.0	18.4	28.6
90	5.0	14.0	12.0	16.0	11.0	24.0	6.0	19.0	15.0	26.0	9.8	19.8
100	3.0	8.0	2.0	10.0	7.0	16.0	10.0	13.0	8.0	18.0	6.0	13.0

Table 7 (continued)

2. Gender

	Gender			
	Male		Female	
Probability	I	R	I	R
10	7.9	3.1	3.6	3.2
20	8.3	0.0	4.4	0.8
30	7.9	1.2	4.4	0.4
40	8.7	0.4	6.0	1.6
50	15.1	7.1	14.9	6.5
60	8.3	11.0	12.1	5.2
70	12.3	17.9	17.7	17.7
80	16.3	28.2	20.6	29.0
90	8.7	18.3	10.9	21.4
100	6.3	11.9	5.6	14.1

Table 7 (continued)

3. Locus of Control

	Locus of Control			
	Internal		External	
Probability	I	R	I	R
10	5.5	2.9	5.6	3.5
20	5.9	0.0	6.5	0.8
30	6.9	0.4	4.4	1.3
40	5.5	0.7	8.9	1.3
50	11.0	4.4	18.1	9.6
60	11.0	6.9	8.5	10.5
70	16.2	18.0	12.5	17.5
80	18.4	29.4	16.0	27.6
90	12.1	21.7	6.5	17.5
100	7.4	15.4	4.0	10.1

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Analysis of Responses to Items in Determining the Reasons for Occupational Choice

A secondary purpose of this study was to examine the reasons for occupational choice regarding career aspiration and career expectation, and to determine if such reasons were influenced by grade, gender, or locus of control. The reasons were categorized under nine headings. These headings were as follows: interests, behaviors, outcomes, career progress, self-evaluation, occupational-evaluation, social relevance, misinformation, and choice. Eighteen 2 x 5 x 2 (grade by gender by locus of control) analyses of variance were performed using reason as the dependent variable and the factors grade, gender, and locus of control as the independent variable. Statistical tests were carried out for main effects at the .05 level of significance. Summaries of the analyses of variance for each reason concerning ideal and real occupational choice are given in Tables 8 and 9.

The data for the subsidiary questions were further examined using descriptive statistics. The data were converted to percentages. These percentages were calculated on the total number of responses given. This is not meant to imply that the same individuals gave the total responses. The percentages are only a portion of the total responses given. The results

of the detailed analyses of the data with respect to ideal and real occupational choice are presented in the Appendices. No further post hoc analyses were carried out.

Table 8

Significant F Ratios (.05 level) from Analyses of Variance on Each Reason for Ideal Occupational Choice

Reason	Source of Variation: Main Effects	2 Way Interactions	3 Way Interactions	F
Interest	Gr			4.293
Behavior	Gr			15.322
	Lc			4.037
		Gr/Ge		6.022
Outcomes	Gr			28.093
	Ge			21.838
		Gr/Ge		12.562
Career Progress	-	-	-	-
Self Evaluation	Gr			11.458
	Ge			4.943
		Gr/Lc		3.808
Occupational Evaluation	Gr			7.034
Social Relevance	Gr			15.876

Table 8 (continued)

	Source of Variation			
Reason	Main Effects	2 Way Interactions	3 Way Interactions	F
Misinformation	Gr			3.645
Choice		Gr/Lc		2.551

Table 9

Significant F Ratios (.05 level) from Analyses of Variance on Each Reason for Real Occupational Choice

Reason	Source of Variation: Main Effects	2 Way Interactions	3 Way Interactions	F
Interest	-	-	-	-
Behavior	Gr			5.594
		Gr/Ge		5.167
			Gr/Ge/Lc	2.563
Outcomes	Gr			22.640
	Ge			19.621
		Gr/Ge		11.143
Career Progress	-	-	-	-
Self Evaluation	Gr			1.875
	Ge			1.799
Occupational Evaluation	Gr			8.348
	Ge			5.982

Table 9 (continued)

	Source of Variation			
Reason	Main Effects	2 Way Interactions	3 Way Interactions	F
Social Relevance	Gr			9.610
		Gr/Lc		3.516
Misinformation	-	-	-	-
Choice		Gr/Ge		4.094

Reasons Given by Students for Ideal and Real Occupational Choice

As can be seen in Table 10, students indicated from their responses on the Career Questionnaire that interest was an important consideration in obtaining their ideal career choice. As shown in Table 10, 55.4 percent of the reasons given were in the interest group, 52.4 percent were in the self evaluations group and 28.2 percent in the occupational evaluation group. Outcomes responses, and behavior responses were grouped as 22.8 and 20.2 percent respectively. Social relevance, choice and career progress did not seem as important in the students priorities when considering their ideal occupational choice, as the relative frequency were 5.2, 2.0, and 1.8 percent.

Table 10 gives the frequency distribution of reasons from the students' responses on their career questionnaire. In giving their reasons for real occupational choice, subjects indicated that interests were an important consideration. 58.4 percent of the responses were placed in the interest group. 50.2 percent were placed in the self evaluation group. 25.0 percent were in occupational evaluation group and 20.2 were in the outcomes group. In considering their real occupational choice, the subjects indicated that social relevance (4.0 percent), choice (3.0 percent), and career progress (1.6

percent) were least important to them. The results indicated that there are no differences in the reasons given for ideal and real occupational choices.

Table 10

Summary of Total Reasons Given by Students for Their Ideal and Real Occupational Choice

Reason	Ideal Occupational Choice		Real Occupational Choice	
	Gave No Reasons	Gave Reasons	Gave No Reasons	Gave Reasons
	(percentage of total responses)			
1. Interest	44.6	55.4	41.6	58.4
2. Behavior	79.2	20.8	80.4	19.6
3. Outcomes	77.2	22.8	79.8	20.2
4. Career Progress	98.2	1.8	98.4	1.6
5. Self Evaluation	47.6	52.4	50.8	50.2
6. Occupational Evaluation	71.2	28.8	75.0	25.0
7. Social Relevance	94.8	5.2	96.0	4.0
8. Misinformation	99.2	0.8	99.2	0.8
9. Choice	98.0	2.0	96.8	3.2

Summary of Reasons

The results of the Statistical analyses of the data with respect to the reasons for occupational choice are presented in the following section.

Interest:

The subjects responses in the interest category for ideal occupational choice were significant for grade. There was no significance for grade for real occupational choice.

Behavior:

Responses for this category for ideal occupational choice indicated that grade, locus of control, and grade/gender were significant. Responses for real occupational choice indicated significance for grade, grade/gender, and grade/gender/locus of control.

Outcomes:

The results showed that grade, gender, and grade/gender were significant for both ideal and real occupational choice.

Career progress:

The results indicated that none of the variables were significant for either ideal or real occupational choice.

Self-evaluation:

The subjects responses for ideal occupational choice were significant for grade, gender, and grade/locus of control. The subjects responses for real occupational choice were

significant for grade and gender.

Occupational-evaluation:

In both ideal and real occupational choice grade was significant.

Social relevance:

The results indicate that grade was significant for ideal occupational choice, grade, and grade/locus of control were significant for real occupational choice.

Misinformation:

Significance was found for grade for ideal occupational choice. There was no significance regarding the variables for real occupational choice.

Choice:

The reasons for ideal occupational choice revealed a grade/locus of control interaction. The reasons for real occupational choice revealed a grade/gender interaction.

In summary it appears that grade was significant for seven of the nine categories for ideal occupational choice. Grade was also significant for five of the nine categories for real occupational choice. Gender was significant for ideal and real occupational choice for the category of outcomes and self-evaluation. Locus of control was significant for the category of behavior for ideal occupational choice. A 2-way interaction of grade/gender was significant for the category

behavior and outcomes for both ideal and real occupational choice. An interaction existed for real occupational choice for the category choice. A grade/locus of control interaction existed for ideal and occupational choice for self-evaluation and choice. This interaction also existed for the category social relevance for real occupational choice. A 3-way interaction was found for the category behavior for real occupational choice. Thus the results indicate that grade was a significant factor in the reasons for occupational choice.

Chapter V

Discussions and Conclusions

The results demonstrate a significant tendency for students to change occupational fields when stating idealistic and realistic occupational choices. However, differences could not be attributed to differences in gender, grade or locus of control. In each case, hypotheses received no empirical support.

Limitations of the Study

Several limitations should be recognized in evaluating the results and conclusions of the study.

First, true random sampling was not possible in selecting students to take part in the study. The sample of subjects included 50 male and 50 female volunteers in each of five grade levels, from one suburban school district within a single geographic area.

Second, the sample used in this study was skewed to one end of the continuum. The subjects comprised on the whole a fairly homogeneous group. The sample had an upper middle class background, above average ability, and better than average educational opportunities. Consequently, the results can only

be generalized to the school and students in the area.

Practical Significance

Counselling and career guidance programs in educational settings can have a significant impact on students' occupational and life choices. The results of this study point to the importance of examining both career aspirations and career expectations in career guidance.

The fact that adolescents ideal and real occupational choices tend not to agree may indicate at least three things. First, adolescents do not seem to have processed enough career information to have an effective framework for making a career decision. Second, adolescents may be unclear as to their own ambitions, values and abilities. This may indicate that adolescents are having difficulty figuring out what they like or what they can do which makes it difficult for some of them to decide which occupation to pursue. Third, they may be attempting to preserve occupational level at the expense of field. Thus, discrepancy in career choice may have come about by pressure to be more realistic. As a result of being realistic a gap often appears between an ideal occupation and an expected occupation. The field of choice selected may be a compromise between desired and expected occupations based on reality (Ginzberg, 1951). The literature revealed

that the adolescents' realism of vocational choice increases just before they enter the job market (Gottfredson, 1981). The discrepancy may have occurred as a shift between fields at the same level rather than moving up or down within a field.

From the literature, vocational theory has little to say about what compromises individuals face in their careers and how they cope with them (Gottfredson, 1981). People seek careers that conform both to their images of themselves and their anticipated opportunities. Ideal occupational choice reflects what a person wants to become and positive self image. Real occupational choice reflects the career that is less than ideal but that may be entered. What significance does this have for the school counsellor? Counsellors may have to grapple with the problem of how to interpret assessed aspirations and attitudes and how to ensure the greatest opportunities for clients. One can use these results as a counselling tool to help adolescents to make vocational choices by providing them with information about themselves rather than having students study specific occupational fields in guidance.

The counsellor may be interested to find out if there are any other factors that influence the discrepancy in field. By asking students both their career aspiration and career expectation, the counsellor can find out through the students

seek in a real occupation. As well, the counsellor can obtain information on that is keeping the student from their ideal choice, and how he/she could change the environment of him/herself in order to obtain a real or ideal occupational choice.

A further question arises regarding the usefullness of the construct of career aspiration and expectation in career maturity. This study revealed no differerce in the percentage of discrepancy in field across grade. Does this imply that students are just as immature or that they have not made vocational choices or could it mean that we will always have fantasy occupations that we will never obtain?

There may be some problem as to the value of the concept "field" of occupational choice. It appears that the definition of field may not be applicable to the real world today. Roe (1956) defined the field dimension as a horizontal dimension based on the type of work activity involved in the occupation. (p. 149). The fact that adolescents ideal and real occupational choice tend not to agree may indicate that field itself as it is presently construed is not suitable. It appears that in career choice adolescents do not conform to any boundaries, as a result there may be nothing wrong with the adolescent's choice. Thus the concept of field itself, that being field of activity, may need to be examined more psychologically as it relates to people.

Theoretical Significance

In examining the hypotheses there was found to be a difference between career aspiration and career expectation. The results indicated that 64.0 percent of the subjects did not match their ideal and real occupational choices. This large discrepancy is significant in that field does not seem to be a powerful constrainer. Some individuals may aspire to a wider range of careers than they may realistically have possibilities for entering.

Early theoretical statements are cognizant of limitations on choice (Blau et al., 1956; Ginzberg et al., 1951). Career theorists explicitly describe vocational choices as compromises between desires and expectations based on reality. People seek careers compatible with the images they have of themselves. When put in a position of having to be realistic people find it painful to shift level of occupational choice. They have to do a self assessment in going from fantasy to reality. It can be suggested that shifting in level means a shift in personal esteem. Thus, they will shift in field of occupational choice in order to retain their level of status. They must compromise what they deem acceptable and desirable to them. People compromise acceptable aspirations between sex type, prestige and field of work. People begin circumscribing their

occupational aspirations early in childhood as they develop conceptions of themselves and of the opportunities which people like themselves can anticipate in life. Reeb (1974) points out that at least as early as the 8th grade, occupational prestige strongly influences judgments of occupational similarity. "People cling tenaciously to more ideal but unrealistic aspirations, since to abandon them is potentially tantamount to abandoning an ideal version of self" (Cochran, 1983). The shift in level become a shock to one's self-esteem. Thus, people shift fields to retain status. The shifting of fields is accompanied by a shifting in occupational goals. The result must end with a satisfactory choice which the individual can accommodate psychologically.

The results for grade in this study are somewhat contrary to those found in the literature. One might think people would pick careers within job clusters in their fantasy and reality choice. However, the results indicate a grade 12 student is just as inclined to pick something different as a grade 8 student. This requires further study and raises questions about the career maturity that students supposedly attain by the time they reach grade 12.

There is no evidence in this study to suggest that locus of control influenced the difference in occupational field. No studies could be found comparing career aspiration and

expectation with locus of control. However, the concept of locus of control could be potentially useful as one of the factors in studying the career development of adolescents. Given the lack of conclusive results in this study, more research with this factor may be needed before it can be meaningfully used in future studies concerning adolescent career choice.

In summary none of the three factors (grade, gender and locus of control) were significant in influencing field of agreement between ideal and real occupational choice.

Subsidiary Questions

The results indicated that the category for both ideal and real occupational choice in order of frequency of responses were interests, self evaluation, occupational evaluation and outcomes. The results of the statistical analyses indicate that grade was significant for most categories for ideal and real occupational choice.

The findings of this study offer some support for a developmental perspective of the ways in which adolescents process pertinent career information (Borgen and Young 1982). The findings of this study suggest that all occupational information is not of equal value to adolescents of different

ages. In examining the specific reasons for occupational choice, this study indicates that earlier suggestions that students may be ready to explore interest, occupational outcomes and career progress as early as grade 8 or 9 seems to be supported in this study (Ginzberg et al., 1951). Adolescents tend to draw boundaries according to judgements of their own abilities and motives. When individuals compromise in selecting a career vocational interests are sacrificed first and job level second (Gottfredson, 1981).

Suggestions for Further Research

Research dealing with the occupational aspiration of adolescents is a relatively new area of systematic investigation. Based on the results of this study, further research might consider topics such as:

1. The replication of this study in schools where the educational level and the occupational status of both the father and the mother include a wider range; this would be of value in obtaining more information about the career aspirations and career expectations of adolescents.
2. The replication of this study with a larger sample base at each of the grade levels.
3. The replication of this study involving a cross section

of students in a variety of curricula.

4. The replication of the study using a different or more expansive rating system for career choice.
5. A longitudinal study of adolescents (grade 8 through 12 and following high school graduation) aspirations and expectations, and their career achievement would be a big step toward filling the present gap in knowledge in the career development of adolescents.
6. A study that examines the influence and impact of parential values on their childs' career aspirations and expectations.
7. A study that compares a students position on Locus of Control with his/her parents' position would add valuable data to the understanding of the anticedents responsible for internality-externality scores.
8. A logical extension of this research would be to interview subjects from the various occupational aspiration and expectation categories in order to supplement further the data from the paper and pencil instruments.
9. A study that examines the data combining both field and level of occupational choice would give further information about the variables involved in the lack of agreement between occupational expectation and aspiration.

Summary

The results presented in the previous chapter suggest strongly that the level of agreement in occupational field between ideal occupational choice and real occupational choice was not influenced by grade, gender and locus of control.

There appears to be a number of possible explanations for the lack of congruence between career aspiration and career expectation and for the lack of influence of grade, gender and locus of control. The first explanation is suggested by the sample in which the study was carried out. It seems that the students in this particular school have tremendous opportunities for educational and occupational advancement. This may be due to the socio economic status of the community and the academic nature of the school. Thus, when lifting the restrictions and requesting their ideal occupational choice, students' aspirations seem to be relatively high. Yet, given choice and chance, these same students aim just as high and would choose their real occupational choice with the same high aspiration, but perhaps from another field.

On another level, as explained in the review of literature, some authors indicate that there are many other factors that are considered when a student gives their ideal and real occupational choice. It has been suggested that self-concept

and vocational maturity are important (Chiu, 1976). This lends support to Super's theory of implementation of self-concept through occupational choice. Furthermore, it may be that the students were not willing to sacrifice prestige and status in their realistic occupational choice. In order to maintain status the subjects completely changed fields rather than shift levels of occupations.

In vocational counselling, one of the major goals of a counsellor has been to help individuals make wise choices (Gottfredson and Becker, 1981). It seems counsellors may have to focus less in assessing and changing the student and focus more on assessing and changing the environment of the student. That is to use the many counselling tools in helping adolescents make vocational choices by providing them with information about themselves rather than providing information about specific careers. More assistance with implementation skills would be particularly useful for adolescents. It would appear that the adolescent is in a stage of vocational exploration and is not ready to make vocational decisions about specific careers.

To sum up, the following conclusions may be drawn from the findings of this study:

1. There is a significant difference in the occupational field for the ideal and real occupational choices of

adolescent students in this study.

2. The extent of agreement in occupational field between ideal occupational choices and real occupational choices of adolescent students is not influenced by gender, grade, or locus of control taken separately or together.
3. The adolescent students' reasons for ideal occupational choices and real occupational choices are influenced by grade.

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Appendix A

General Information Questionnaire

You are being asked to participate in a research study conducted in conjunction with the Department of Counselling Psychology at the University of B. C. The aim of the study is to provide information on how secondary school students make vocational plans and decisions. Studies such as this help us to plan services which are most useful to students. We are most grateful for your participation and all information you provide will be kept in strict confidence. Please complete this questionnaire.

Grade _____ Age _____years

Date of birth: Day _____ Month _____ Year _____

Circle whether you are male or female.

Father's Occupation _____

Mother's Occupation _____

Please Wait Until You Are Instructed to Turn the Page

Appendix B

Career Questionnaire

On the following pages are a number of questions about careers. These questions ask you to provide information about your thoughts. Students differ considerably in the amounts of thinking and planning they do about their future careers. We are asking students to give their ideas about their future career. The only right answers are the ones which are right for you. Give the best answer you can.

1. It is interesting to think about the occupation which would be most desirable to you, without having to consider limiting factors such as money, ability and talent, opportunities to obtain further education and training, et cetera. This may sound impossible, but if you were completely free to choose, what would be your ideal occupation? Be as specific as possible.

   Your answer:

   _____

   _____

   _____

2. What chances out of 10 do you feel you have of ever getting this ideal occupation? Circle your chances from 1 through 10.

1 2 3 4 5 6 7 8 9 10

None 50-50 Completely Sure

Please give some reasons why you think your chances are high or low.

_____

_____

_____

3. What occupation are you most likely to enter? That is, looking ahead into the future from where you are now and what you are doing in school now, what occupation do you think you are most likely to take up after you have completed your education? Be as specific as possible.

Your answer:

_____

_____

_____

4. What chances out of 10 do you feel you have of getting this occupation? Circle your chances from 1 through 10.

1 2 3 4 5 6 7 8 9 10

None 50-50 Completely Sure

Please give some reasons why you think your chances are high or low.

_____

_____

_____

Appendix C

Cell Means for Grade, Gender, Locus of Control

Grade

	8	9	10	11	12	Total
Locus of control						
Internal	0.57	0.67	0.74	0.47	0.59	0.61
	(54)	(49)	(53)	(57)	(59)	(272)
External	0.72	0.75	0.62	0.70	0.63	0.68
	(46)	(51)	(47)	(43)	(41)	(228)
Total	0.64	0.71	0.68	0.57	0.61	0.645
	(100)	(100)	(100)	(100)	(100)	(500)

Grade

	8	9	10	11	12	Total
Gender						
Male	0.74	0.76	0.73	0.52	0.64	0.61
	(50)	(51)	(51)	(50)	(50)	(272)
Female	0.54	0.65	0.63	0.62	0.58	0.68
	(50)	(49)	(49)	(50)	(50)	(228)

Appendix C (continued)

Grade

	8	9	10	11	12	Total
Total	0.64	0.71	0.68	0.57	0.61	0.645
	(100)	(100)	(100)	(100)	(100)	(500)

Gender

Locus of control	Males	Females	Total
Internal	0.66	0.66	0.66
	(140)	(132)	(272)
External	0.71	0.66	0.68
	(112)	(116)	(228)
Total	0.68	0.66	
	(252)	(248)	

Appendix D

Summary of Reasons Given by Students for Ideal Occupational Choice by Gender

	Reason		Male (Percentage)	Female	Total
1	Interest	Gave no Reasons	45.8	43.7	44.6
		Gave Reasons	54.2	56.3	55.4
2	Behavior	Gave no Reasons	81.3	77.1	79.2
		Gave Reasons	18.7	22.9	20.8
3	Outcomes	Gave no Reasons	71.1	83.5	77.2
		Gave Reasons	28.9	16.5	22.8
4	Career Progress	Gave no Reasons	98.8	97.6	98.2
		Gave Reasons	1.2	2.4	1.8
5	Self Evaluation	Gave no Reasons	55.3	42.7	47.6
		Gave Reasons	45.7	57.3	52.4
6	Occupational	Gave no Reasons	71.4	71.0	71.2
	Evaluation	Gave Reasons	28.6	29.0	28.8
7	Social Relevance	Gave no Reasons	96.0	93.5	94.8
		Gave Reasons	4.0	6.5	5.2
8	Misinformation	Gave no Reasons	99.2	99.2	99.2
		Gave Reasons	0.8	0.8	0.8

Appendix D (continued)

	Reason		Male	Female	Total
			(Percentage)		
9	Choice	Gave no Reasons	98.0	98.0	98.0
		Gave Reasons	2.0	2.0	2.0
Total		Gave no Reasons	79.4	78.5	78.9
		Gave Reasons	20.6	21.5	21.1
Total N			(252)	(248)	(500)

Appendix E

Summary of Reasons Given by Students for Real Occupational Choice by Gender

	Reason		Male (Percentage)	Female (Percentage)	Total (Percentage)
1	Interest	Gave no Reason	40.1	43.1	41.6
		Gave Reason	59.9	56.9	58.4
2	Behavior	Gave no Reason	83.3	74.4	80.4
		Gave Reason	16.7	25.6	19.6
3	Outcomes	Gave no Reason	73.0	86.7	79.8
		Gave Reason	27.0	13.3	20.2
4	Career Progress	Gave no Reason	97.6	99.2	98.4
		Gave Reason	2.4	0.8	1.6
5	Self Evaluation	Gave no Reason	57.1	44.4	50.8
		Gave Reason	42.9	55.6	49.2
6	Occupational Evaluation	Gave no Reason	70.6	79.4	75.0
		Gave Reason	29.4	20.6	25.0
7	Social Relevance	Gave no Reason	97.6	94.3	96.0
		Gave Reason	2.4	5.7	4.0
8	Misinformation	Gave no Reason	98.8	99.6	99.2
		Gave Reason	1.2	0.4	0.8

Appendix E (continued)

	Reason		Male	Female	Total
			(Percentage)		
9	Choice	Gave no Reason	97.6	96.0	96.8
		Gave Reason	2.4	4.0	3.2
Total		Gave no Reason	79.5	80.1	79.8
		Gave Reason	20.5	19.9	20.2
(Total N)			(252)	(248)	(500)

Appendix F

Summary of Reasons Given by Students for Ideal Occupational Choice by Grade

Reason	Grade 8	9	10	11	12	Total
	(Percentage)					
1 Interest						
Gave no Reason	33.0	45.0	43.0	57.0	45.0	44.6
Gave Reason	67.0	55.0	57.0	43.0	55.0	55.4
2 Behavior						
Gave no Reason	55.0	93.0	88.0	76.0	85.0	79.2
Gave Reason	45.0	7.0	12.0	24.0	15.0	20.8
3 Outcomes						
Gave no Reason	43.0	94.0	87.0	71.0	95.0	77.2
Gave Reason	67.0	6.0	13.0	29.0	5.0	22.8
4 Career Progress						
Gave no Reason	99.0	100.0	97.0	98.0	97.0	98.2
Gave Reason	1.0	0.0	3.0	2.0	3.0	1.8
5 Self Evaluation						
Gave no Reason	77.0	64.0	33.0	23.0	31.0	47.6
Gave Reason	23.0	36.0	67.0	77.0	69.0	52.4

Appendix F (continued)

Reason	Grade 8	9	10	11	12	Total
	(Percentage)					
6 Occupational Evaluation						
Gave no Reason	53.0	84.0	84.0	60.0	75.0	71.2
Gave Reason	47.0	16.0	16.0	40.0	25.0	28.8
7 Social Relevance						
Gave no Reason	80.0	96.0	100.0	98.0	100.0	94.8
Gave Reason	20.0	4.0	0.0	2.0	0.0	5.2
8 Misinformation						
Gave no Reason	96.0	100.0	100.0	100.0	100.0	97.2
Gave Reason	4.0	0.0	0.0	0.0	0.0	2.8
9 Choice						
Gave no Reason	100.0	98.0	96.0	96.0	99.0	98.0
Gave Reason	0.0	2.0	4.0	4.0	1.0	2.0
Total						
Gave no Reason	70.6	86.0	82.0	75.5	80.7	78.6
Gave Reason	29.4	14.0	18.0	24.5	19.3	21.4

Appendix G

Summary of Reasons Given by Students for Real Occupational Choice by Grade

Reason	Grade 8	9	10	11	12	Total
	(Percentage)					
1 Interest						
Gave no Reason	36.0	45.0	40.0	50.0	42.0	41.6
Gave Reason	64.0	55.0	60.0	50.0	58.0	58.4
2 Behavior						
Gave no Reason	65.0	90.0	90.0	71.0	86.0	80.4
Gave Reason	35.0	10.0	10.0	29.0	14.0	19.6
3 Outcomes						
Gave no Reason	63.0	87.0	77.0	75.0	97.0	79.8
Gave no Reason	37.0	12.0	23.0	25.0	3.0	20.2
4 Career Progress						
Gave no Reason	100.0	100.0	99.0	97.0	96.0	98.4
Gave no Reason	0.0	0.0	1.0	3.0	4.0	1.6
5 Self Evaluation						
Gave no Reason	51.0	54.0	56.0	47.0	46.0	50.8
Gave Reason	49.0	46.0	44.0	53.0	54.0	49.2

Appendix G (continued)

Reason	Grade 8	9	10	11	12	Total
	(Percentage)					
6 Occupational Evaluation						
Gave no Reason	53.0	87.0	83.0	71.0	81.0	75.0
Gave Reason	47.0	13.0	17.0	29.0	19.0	25.0
7 Social Relevance						
Gave no Reason	86.0	96.0	99.0	100.0	98.0	96.0
Gave Reason	14.0	4.0	1.0	0.0	1.0	4.0
8 Misinformation						
Gave no Reason	97.0	99.0	100.0	100.0	100.0	99.2
Gave Reason	3.0	1.0	0.0	0.0	0.0	0.8
9 Choice						
Gave no Reason	97.0	99.0	98.0	94.0	96.0	96.8
Gave Reason	3.0	1.0	2.0	6.0	4.0	3.2
Total						
Gave no Reason	72.0	84.1	82.4	78.3	82.5	79.7
Gave Reason	28.0	15.9	17.6	11.7	17.5	20.3

Appendix H

Summary of Reasons Given by Students for Ideal Occupational Choice for Locus of Control

Reason	Locus of Control		
	Internal	External	Total
	(Percentage)		
1 Interest			
Gave no Reason	45.2	43.9	44.6
Gave Reason	54.8	56.1	55.4
2 Behavior			
Gave no Reason	82.0	75.9	79.2
Gave Reason	18.0	24.1	20.8
3 Outcomes			
Gave no Reason	79.4	74.6	77.2
Gave Reason	20.6	25.4	22.8
4 Career Progress			
Gave no Reason	97.4	99.1	98.2
Gave Reason	2.6	0.9	1.8
5 Self Evaluation			
Gave no Reason	46.0	49.6	47.6
Gave Reason	54.0	50.4	52.4

Appendix H (continued)

Reason	Locus of Control		
	Internal (Percentage)	External	Total
6 Occupational Evaluation			
Gave no Reason	71.3	71.1	71.2
Gave Reason	28.7	28.9	28.8
7 Social Relevance			
Gave no Reason	96.0	93.4	94.8
Gave Reason	4.0	6.6	5.2
8 Misinformation			
Gave no Reason	98.9	99.6	99.2
Gave Reason	1.1	0.4	0.8
9 Choice			
Gave no Reason	98.2	97.8	98.0
Gave Reason	1.8	2.2	2.0

Appendix H (continued)

	Locus of Control		
Reason	Internal	External	Total
	(Percentage)		
Total			
Gave no Reason	79.4	78.4	78.9
Gave Reason	20.6	21.6	21.1
(Total N)	(272)	(248)	(500)

Appendix I

Summary of Reasons Given by Students for Real Occupational Choice for Locus of Control

Reason	Locus of Control		
	Internal	External	Total
	(Percentage)		
1 Interest			
Gave no Reason	40.8	42.5	41.6
Gave Reason	59.2	57.5	58.4
2 Behavior			
Gave no Reason	81.3	79.4	80.4
Gave Reason	18.8	20.6	19.6
3 Outcomes			
Gave no Reason	82.4	76.8	79.8
Gave Reason	17.6	23.2	20.2
4 Career Progress			
Gave no Reason	98.9	97.8	98.4
Gave Reason	1.1	2.2	1.6
5 Self Evaluation			
Gave no Reason	46.7	55.7	50.8
Gave Reason	53.3	44.3	49.2

Appendix I (continued)

Reason	Locus of Control		
	Internal	External	Total
	(Percentage)		
6 Occupational Evaluation			
Gave no Reason	73.9	76.3	75.0
Gave Reason	26.1	23.7	25.0
7 Social Relevance			
Gave no Reason	96.3	95.6	96.0
Gave Reason	3.7	4.4	4.0
8 Misinformation			
Gave no Reason	98.9	99.6	99.2
Gave Reason	1.1	.4	.8
9 Choice			
Gave no Reason	97.1	96.5	96.8
Gave Reason	2.9	3.5	3.2

Appendix I (continued)

Reason	Locus of Control		
	Internal	External	Total
	(Percentage)		
Total			
Gave no Reason	79.6	75.2	77.6
Gave Reason	20.4	24.8	22.4
(Total N)	(272)	(248)	(500)

Appendix J

Summary of Reasons Given by Students for Ideal Occupational Choice for Locus of Control and Gender

Reason	Gender					
	Internal Male	External Male	Total	Internal Female	External Female	Total
	(Percentage)					
1 Interest						
Gave no Reason	45.7	45.5	45.6	44.7	43.3	43.5
Gave Reason	54.3	54.5	54.4	55.3	57.7	56.5
2 Behavior						
Gave no Reason	85.7	75.9	81.3	78.1	76.7	77.5
Gave Reason	14.3	24.1	18.7	21.9	23.3	22.5
3 Outcomes						
Gave no Reason	77.1	63.4	71.1	81.8	85.3	83.5
Gave Reason	22.9	36.6	28.9	18.2	14.7	16.5
4 Career Progress						
Gave no Reason	99.3	97.2	98.9	96.3	99.2	97.6
Gave Reason	0.7	1.8	1.1	3.7	0.8	2.4

Appendix J (continued)

	Gender					
Reason	Internal Male	External Male	Total	Internal Female	External Female	Total
	(Percentage)					
5 Self Evaluation						
Gave no Reason	51.7	54.7	53.4	50.9	44.8	42.7
Gave Reason	49.3	45.3	47.6	59.1	55.2	57.3
6 Occupational Evaluation						
Gave no Reason	72.9	69.6	71.4	69.7	72.4	71.0
Gave Reason	27.1	30.4	28.6	30.3	27.6	29.0
7 Social Relevance						
Gave no Reason	97.9	93.7	96.1	93.9	93.2	93.5
Gave Reason	2.1	6.3	3.9	6.1	6.8	6.5
8 Misinformation						
Gave no Reason	98.6	100.0	99.2	99.2	99.2	99.2
Gave Reason	1.4	0.0	0.8	0.8	0.8	0.8

Appendix J (continued)

Reason	Internal Male	External Male	Total	Internal Female	External Female	Total
			(Percentage)			
9 Choice						
Gave no Reason	97.9	98.2	98.1	98.5	97.4	98.0
Gave Reason	2.1	1.8	1.9	1.5	2.6	2.0
Total						
Gave no Reason	80.6	77.7	79.3	78.1	78.9	78.5
Gave Reason	19.4	22.3	21.9	21.9	21.1	21.5
(Total N)	(140)	(112)	(252)	(132)	(116)	(248)

Appendix K

Summary of Reasons Given by Students for Real Occupational Choice for Locus of Control and Gender

Reason	Gender					
	Internal Male	External Male	Total	Internal Female	External Female	Total
	(Percentage)					
1 Interest						
Gave no Reason	42.9	45.4	44.1	38.6	48.3	43.1
Gave Reason	57.1	54.5	55.9	61.4	51.7	56.9
2 Behavior						
Gave no Reason	86.2	79.5	83.3	75.8	79.3	77.4
Gave Reason	13.8	20.5	16.7	24.2	20.7	22.6
3 Outcomes						
Gave no Reason	77.9	67.0	73.o	87.1	86.3	86.7
Gave Reason	22.1	33.0	26.9	12.9	13.7	13.3
4 Career Progress						
Gave no Reason	100.0	94.6	97.6	99.2	99.2	99.2
Gave Reason	0.0	5.4	2.4	0.8	0.8	0.8

Appendix K (continued)

	Gender					
Reason	Internal Male	External Male	Total	Internal Female	External Female	Total
	(Percentage)					
5 Self Evaluation						
Gave no Reason	52.9	63.8	57.1	39.4	50.0	44.4
Gave Reason	47.1	36.2	42.9	60.6	50.0	55.6
6 Occupational Evaluation						
Gave no Reason	71.4	69.6	70.6	77.3	81.9	79.4
Gave Reason	28.6	30.4	29.4	22.7	18.1	20.6
7 Social Relevance						
Gave no Reason	97.1	98.2	97.6	95.5	93.2	94.4
Gave Reason	2.9	1.8	2.4	4.5	6.8	5.6
8 Misinformation						
Gave no Reason	98.6	99.2	98.8	99.2	100.0	99.6
Gave Reason	1.4	0.8	1.2	0.8	0.0	0.4

Appendix K (continued)

	Gender					
Reason	Internal Male	External Male	Total	Internal Female	External Female	Total
	(Percentage)					
9 Choice						
Gave no Reason	97.9	97.4	97.7	96.2	95.7	96.0
Gave Reason	2.1	2.6	2.3	3.8	4.3	4.0
Total						
Gave no Reason	80.6	79.3	80.0	71.1	81.5	76.0
Gave Reason	19.4	20.7	20.0	28.9	18.5	24.0
(Total N)	(140)	(112)	(252)	(132)	(116)	(248)

Appendix L

Summary of Reasons Given by Students for Ideal Occupational Choice for Internal Locus of Control and Grade

Reason	Grade 8	9	10	11	12	Total
	(Percentage)					
1 Interest						
Gave no Reason	35.2	42.9	35.8	57.9	52.5	45.2
Gave Reason	64.8	57.1	64.2	42.1	47.5	54.8
2 Behavior						
Gave no Reason	61.2	91.8	86.8	80.7	89.8	82.0
Gave Reason	38.8	8.2	13.2	19.3	10.2	18.0
3 Outcomes						
Gave No Reason	50.0	95.9	88.7	70.2	93.2	79.4
Gave Reason	50.0	4.1	11.3	29.8	6.8	20.6
4 Career Progress						
Gave no Reason	98.2	100.0	96.2	96.5	96.6	98.4
Gave Reason	1.8	0.0	3.8	3.5	3.4	2.6
5 Self Evaluation						
Gave no Reason	66.7	64.3	28.3	35.1	37.3	46.0
Gave Reason	33.3	34.7	71.7	64.9	62.7	54.0

Appendix L (continued)

	Grade					
Reason	8	9	10	11	12	Total
	(Percentage)					
6 Occupational Evaluation						
Gave no Reason	55.6	81.6	92.5	59.6	69.5	65.1
Gave Reason	44.4	18.4	7.5	40.4	30.5	34.9
7 Social Relevance						
Gave no Reason	85.2	95.9	100.0	98.3	100.0	96.0
Gave Reason	14.8	4.1	0.0	1.7	0.0	4.0
8 Misinformation						
Gave no Reason	94.5	100.0	100.0	100.0	100.0	98.9
Gave Reason	5.5	0.0	0.0	0.0	0.0	1.1
9 Choice						
Gave no Reason	100.0	100.0	98.1	94.7	98.3	98.2
Gave Reason	0.0	0.0	1.9	5.3	1.7	1.8

Appendix L (continued)

	Grade					
Reason	8	9	10	11	12	Total
	(Percentage)					
Total						
Gave no Reason	71.8	85.9	80.7	77.0	81.9	79.4
Gave Reason	28.2	14.1	19.3	23.0	18.0	20.6
(Total N)	(54)	(49)	(43)	(57)	(59)	(272)

Appendix M

Summary of Reasons Given by Students for Real Occupational Choice for Internal Locus of Control and Grade

Reason	Grade 8	9	10	11	12	Total
	(Percentage)					
1 Interest						
Gave no Reason	31.5	36.8	34.0	51.9	49.2	40.8
Gave Reason	68.5	63.2	66.0	49.1	50.8	59.2
2 Behavior						
Gave no Reason	64.8	77.8	78.7	84.2	81.4	81.2
Gave Reason	35.2	12.2	11.3	15.8	18.6	18.8
3 Outcomes						
Gave no Reason	59.3	93.9	84.9	79.9	94.9	82.4
Gave Reason	40.7	6.1	15.1	21.1	5.1	17.6
4 Career Progress						
Gave no Reason	100.0	100.0	100.0	98.2	96.6	98.9
Gave Reason	0.0	0.0	0.0	1.8	3.4	1.1
5 Self Evaluation						
Gave no Reason	65.6	61.2	49.1	41.4	30.5	46.7
Gave Reason	44.4	38.8	50.9	59.6	68.5	53.3

Appendix M (continued)

Reason	Grade 8	9	10	11	12	Total
	(Percentage)					
6 Occupational Evaluation						
Gave no Reason	57.4	85.7	86.8	70.2	71.2	73.9
Gave Reason	42.6	14.3	13.2	29.8	28.8	26.1
7 Social Relevance						
Gave no Reason	90.7	95.9	94.4	100.0	100.0	96.3
Gave Reason	9.3	4.1	5.6	0.0	0.0	3.7
8 Misinformation						
Gave no Reason	96.3	98.0	100.0	100.0	100.0	98.9
Gave Reason	3.7	2.0	0.0	0.0	0.0	1.1
9 Choice						
Gave no Reason	94.5	100.0	98.1	94.7	97.3	97.1
Gave Reason	5.5	0.0	1.9	5.3	1.7	2.9

Appendix M (continued)

Reason	Grade					
	8	9	10	11	12	Total
	(Percentage)					
Total						
Gave no Reason	82.2	84.4	81.2	79.7	80.2	79.6
Gave Reason	27.2	15.6	18.2	20.3	19.8	20.4
(Total N)	(54)	(49)	(53)	(57)	(59)	(272)

Appendix N

Summary of Reasons Given by Students for Ideal Occupational Choice for External Locus of Control and Grade

Reason	Grade 8	9	10	11	12	Total
	(Percentage)					
1 Interest						
Gave no Reason	30.4	47.1	51.1	55.8	34.1	48.4
Gave Reason	69.6	52.9	48.9	44.2	65.9	51.6
2 Behavior						
Gave no Reason	47.8	94.1	89.3	67.4	78.1	75.9
Gave Reason	52.2	59.0	10.6	32.6	21.9	24.1
3 Outcomes						
Gave no Reason	34.8	92.2	85.1	72.1	87.8	74.6
Gave Reason	65.2	7.8	14.9	27.9	12.2	25.4
4 Career Progress						
Gave no Reason	100.0	100.0	97.9	100.0	97.6	99.2
Gave Reason	0.0	0.0	2.1	0.0	2.4	0.8
5 Self Evaluation						
Gave no Reason	67.4	62.6	59.6	30.2	22.0	49.6
Gave Reason	32.6	37.3	40.4	69.8	78.0	50.4

Appendix N (continued)

Reason	Grade 8	9	10	11	12	Total
	(Percentage)					
6 Occupational Evaluation						
Gave no Reason	50.0	86.3	74.5	60.5	82.9	71.1
Gave Reason	50.0	13.7	25.5	39.5	17.1	28.9
7 Social Relevance						
Gave no Reason	73.9	96.1	100.0	97.7	100.0	93.4
Gave Reason	26.1	3.9	0.0	2.3	0.0	6.6
8 Misinformation						
Gave no Reason	97.8	100.0	100.0	100.0	100.0	99.2
Gave Reason	2.2	0.0	0.0	0.0	0.0	0.8
9 Choice						
Gave no Reason	100.0	96.1	6.4	100.0	100.0	97.8
Gave Reason	0.0	3.9	93.7	0.0	0.0	2.2

Appendix N (continued)

	Grade					
Reason	8	9	10	11	12	Total
	(Percentage)					
Total						
Gave no Reason	76.9	86.1	83.5	76.0	88.0	80.7
Gave Reason	33.1	12.9	16.5	24.0	22.0	19.3
(Total N)	(46)	(51)	(47)	(43)	(41)	(228)

Appendix O

Summary of Reasons Given by Students for Real Occupational Choice for External Locus of Control and Grade

	Grade					
Reason	8	9	10	11	12	Total
	(Percentage)					
1 Interest						
Gave no Reason	41.3	47.1	41.4	46.6	36.6	42.5
Gave Reason	58.7	52.9	59.6	53.4	63.4	57.5
2 Behavior						
Gave no Reason	65.2	88.2	89.4	72.1	80.5	79.4
Gave Reason	34.8	11.8	10.6	27.9	19.5	20.6
3 Outcomes						
Gave no Reason	41.3	94.2	87.2	67.4	72.7	76.8
Gave Reason	58.7	51.8	12.8	32.6	27.3	23.2
4 Career Progress						
Gave no Reason	97.8	98.1	100.0	95.4	97.6	97.8
Gave Reason	2.2	1.9	0.0	4.6	2.4	2.2
5 Self Evaluation						
Gave no Reason	65.2	76.5	53.2	44.2	34.1	53.7
Gave Reason	34.8	23.5	46.8	55.8	65.9	44.3

Appendix O (continued)

Reason	Grade 8	9	10	11	12	Total
	(Percentage)					
6 Occupational Evaluation						
Gave no Reason	58.7	92.2	76.6	74.4	78.1	76.3
Gave Reason	41.3	7.8	23.4	25.6	21.9	23.7
7 Social Relevance						
Gave no Reason	80.4	98.1	100.0	100.0	100.0	95.6
Gave Reason	19.6	1.9	0.0	0.0	0.0	4.4
8 Misinformation						
Gave no Reason	97.8	100.0	100.0	100.0	100.0	99.6
Gave Reason	2.2	0.0	0.0	0.0	0.0	0.4
9 Choice						
Gave no Reason	100.0	98.1	93.6	95.4	95.2	96.5
Gave Reason	0.0	1.9	6.4	4.6	4.8	3.5

Appendix O (continued)

Reason	Grade 8	9	10	11	12	Total
	(Percentage)					
Total						
Gave no Reason	73.4	78.0	83.3	77.3	79.4	81.9
Gave Reason	26.2	12.0	17.7	22.7	20.6	18.1
(Total N)	(46)	(51)	(47)	(43)	(41)	(228)

Appendix P

Summary of Reasons Given by Students for Ideal Occupational Choice for Gender and Grade (Junior/Senior)

Reason	Gender by Grade					
	Males in Junior Grades	Males in Senior Grades	Total	Females in Junior Grades	Females in Senior Grades	Total
	(Percentage)					
1 Interest						
Gave no Reason	39.0	56.0	45.6	41.6	46.4	43.5
Gave Reason	61.0	44.0	54.4	58.4	53.6	56.5
2 Behavior						
Gave no Reason	82.7	80.0	81.3	73.8	81.8	77.0
Gave Reason	17.3	20.0	18.7	26.2	18.2	23.0
3 Outcomes						
Gave no Reason	72.1	70.0	71.1	77.1	92.9	83.4
Gave Reason	27.9	30.0	28.9	22.9	7.1	16.6
4 Career Progress						
Gave no Reason	98.0	100.0	98.2	98.6	95.9	97.5
Gave Reason	2.0	0.0	1.2	21.4	4.1	2.5

Appendix P (continued)

	Gender by Grade					
Reason	Males in Junior Grades	Males in Senior Grades	Total	Females in Junior Grades	Females in Senior Grades	Total
	(Percentage)					
5 Self Evaluation						
Gave no Reason	60.9	40.0	52.3	55.0	24.2	42.7
Gave Reason	39.1	60.0	47.7	45.0	75.8	57.3
6 Occupational Evaluation						
Gave no Reason	78.1	62.0	71.5	69.0	73.7	70.9
Gave Reason	21.9	38.0	28.6	31.0	26.3	29.1
7 Social Relevance						
Gave no Reason	95.3	97.0	96.0	89.2	100.0	93.5
Gave Reason	4.7	3.0	4.0	10.8	0.0	6.5
8 Misinformation						
Gave no Reason	98.6	100.0	99.2	98.6	100.0	99.2
Gave Reason	1.4	0.0	0.8	1.4	0.0	0.8

Appendix P (continued)

Reason	Gender by Grade					
	Males in Junior Grades	Males in Senior Grades	Total	Females in Junior Grades	Females in Senior Grades	Total
	(Percentage)					
9 Choice						
Gave no Reason	98.6	98.0	98.0	97.9	97.9	98.0
Gave Reason	1.4	2.0	2.0	2.1	2.1	2.0
Total						
Gave no Reason	80.4	77.7	79.3	78.4	78.4	78.4
Gave Reason	19.6	22.3	20.7	21.6	21.6	21.6
(Total N)	(152)	(100)	(252)	(148)	(100)	(248)

Appendix Q

Summary of Reasons Given by Students for Real Occupational Choice for Gender and Grade (Junior/Senior)

Reason	Grade by Gender: Males in Junior Grades	Males in Senior Grades	Total	Females in Junior Grades	Females in Senior Grades	Total
	(Percentage)					
1 Interest						
Gave no Reason	39.7	40.5	40.1	37.5	51.5	43.1
Gave Reason	60.3	59.5	59.9	62.5	48.5	56.9
2 Behavior						
Gave no Reason	88.0	76.2	83.3	75.1	80.8	77.4
Gave Reason	12.0	23.8	16.7	24.9	19.2	22.6
3 Outcomes						
Gave no Reason	71.5	75.2	73.0	79.8	96.9	86.6
Gave Reason	29.5	24.8	27.0	20.2	3.1	13.4
4 Career Progress						
Gave no Reason	99.3	95.0	97.6	100.0	97.9	99.1
Gave Reason	0.7	5.0	2.4	0.0	2.1	0.9

Appendix Q (continued)

	Grade by Gender					
Reason	Males in Junior Grades	Males in Senior Grades	Total	Females in Junior Grades	Females in Senior Grades	Total
	(Percentage)					
5 Self Evaluation						
Gave no Reason	55.4	55.4	57.2	48.9	37.3	44.3
Gave Reason	41.8	44.6	42.8	51.1	62.7	55.7
6 Occupational Evaluation						
Gave no Reason	70.8	70.2	70.6	77.8	81.8	79.4
Gave Reason	29.2	29.8	29.4	22.2	18.2	20.6
7 Social Relevance						
Gave no Reason	96.0	100.0	97.6	91.2	98.9	94.3
Gave Reason	4.0	0.0	2.4	8.8	1.1	5.7
8 Misinformation						
Gave no Reason	98.0	100.0	98.6	99.3	100.0	99.6
Gave Reason	2.0	0.0	1.4	0.7	0.0	0.4

Appendix Q (continued)

Reason	Grade by Gender					
	Males in Junior Grades	Males in Senior Grades	Total	Females in Junior Grades	Females in Senior Grades	Total
	(Percentage)					
9 Choice						
Gave no Reason	98.6	96.0	97.6	97.3	93.9	96.0
Gave Reason	1.4	4.0	2.4	2.7	5.1	4.0
Total						
Gave no Reason	80.4	77.7	79.4	79.1	81.3	79.7
Gave Reason	19.6	22.3	20.6	20.9	18.7	20.3
(Total N)	(152)	(100)	(252)	(148)	(100)	(248)

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